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PSYCHOLOGICAL ABSTRACTS

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CONTENTS

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AUTHOR INDEX

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VOL. VII, No. 5 MAY, 1933

GENERAL

1646. **Bischler, W. Das Freiheitsproblem im Lichte der modernen Forschungen.** (The problem of free will in the light of modern studies.) *Psychol. Rundschau*, 1933, **4**, 200–203.—This article discusses the problem of free will versus determinism. New studies of heredity throw light on the subject. American behaviorism and Russian reflexology contribute to the problem, as does also the psychiatric field which Janet has revealed. Psychoanalysis gives arguments for determinism. Adler and others see free will in the new insight that comes from association processes and the will to follow such insights. Loeser takes the same viewpoint. We cannot deny the feeling of freedom that accompanies spontaneous responses. Man does purpose and execute.—*A. B. Herrig* (Michigan Central State Teachers College).

1647. **Bühler, C. Le cours de la vie humaine, un problème psychologique.** (The course of human life, a psychological problem.) *J. de psychol.*, 1932, **29**, 818–829.—The author wishes to discover whether the laws of psychological development correspond to the laws of biological development. Several biographies of people who had short lives, people who had long lives, people who were precocious or retarded, etc., are analyzed. The report is a glimpse of the method which the author and her collaborators intend to apply to the problem.—*N. L. Munn* (Pittsburgh).

1648. **Chamberlain, C. W. Psychology simplified.** Springfield, Ill.: Schnepp & Barnes, 1932. Pp. 178. $1.00.—A popular treatise by a "practical psychologist."—*O. L. Harvey* (Boston, Mass.).

1649. **Claparède, E. Die funktionelle Psychologie.** (Functional psychology.) *Indus. Psychotechn.*, 1932, **9**, 382–383.—Claparède gives a brief summary of functionalism. According to his interpretation, functionalism deals with mental life as a means to goals. Functional psychology is merely a point of view, a means of approach to mental life, and not a kind of psychology which differs from other types, such as structuralism, etc. Functionalism has a legitimate claim for existence because it makes mental life the mainspring and guiding force of life. This point of view is useful for practical purposes in education and medicine. In order for education to be successful it must be functionalistic, since its purpose is to train the child to make successful adjustments to organismic and social needs.—*C. Burri* (Chicago).

1650. **Claparède, E. Wunsch bezüglich der Terminologie.** (A wish regarding terminology.) *Indus. Psychotechn.*, 1932, **9**, 382.—Members of the section on terminology in the Psychological Congress in Copenhagen expressed the need for a standardization of psychological terminology. They wish to work out fixed connotations for technical terms, and to standardize translations for certain terms, such as *Einsicht*, reliability, *Gestalt*, aptitude, etc. An invitation to join this movement is extended to all psychologists.—*C. Burri* (Chicago).

1651. **Crawford, M. P., & Brundage, E. G. Recent methods of generating sound stimuli for use in testing the auditory capacity in animals.** *Quart. Rev. Biol.*, 1932, **7**, 444–457.—A description of the electrical methods for generating sound, their use, and the measurement of electrical oscillations and sound; bibliography of 43 titles.—*O. W. Richards* (Yale).

1652. **Cuvillier, —. Manuel de philosophie. Appendices: psychologie expérimentale, science du langage, esthétique, logique formelle.** (Manual of philosophy. Appendices: experimental psychology, the science of language, esthetics, and formal logic.) Paris: Colin, 1932. Fr. 8.00.—23 pages destined for the psychology students in the *lycées*. The author here explains laboratory psychology clearly, also test methods and the applications of experimental psychology.—*Math. H. Piéron* (Sorbonne).

1653. **Davis, F., & Batalla, M. A life-size alley maze for children.** *J. Genet. Psychol.*, 1932, **41**, 235–239.—On a wooden platform 16′ by 16′, pivoted in the center, are set up permanent pine posts, into which are fitted wooden partitions as desired and between which are hung curtains. Doors in the partitions are locked with solenoid bolts operated from the experimenter's unseen position. Obvious mechanical advantages follow from the demountable unit scheme of construction.—*J. F. Dashiell* (North Carolina).

1654. **Dumas, G. Nouveau traité de psychologie, tome deuxième.** (New treatise on psychology, Vol. II.) Paris: Alcan, 1932. Pp. 612. Fr. 100.00.—Volume II treats of the fundamentals of mental life, and is composed of four books. The first book is devoted to the elementary reactions, and is made up of two chapters; the first, by G. Dumas and H. Piéron, is on excitation and movement, and has a bibliography of 150 titles. The second chapter, by A. Mayer, is on the relationship between mental excitation and the secretions, and has a bibliography of about 50 titles. The second book is devoted to the study of sensation, and is entirely written by B. Bourdon, with a bibliography of more than 150 titles. Book III concerns the affective states, and is composed of six chapters, five of which are by G. Dumas and the sixth by J. Larguier des Bancels. Each chapter is followed by a full bibliography. The first chapter is entitled *The Disagreeable and the Agreeable;* the second *Pain and Pleasure;* the third *Emotional Shocks;* the fourth *The Emotions* (sadness, joy, fear, anger); the fifth

The Needs (needs of acquisition, evacuation, needs relative to space, and socialization of needs). The sixth treats of instinctive tendencies. Book IV is one long chapter by I. Myerson on images (image and thought, character and the rôle of the image, perception, sensation, varieties and classes of images). Bibliography of 140 titles.—*Math. H. Piéron* (Sorbonne).

1655. **Duncker, K. Behaviorismus und Gestaltpsychologie. Kritische Bemerkungen zu Carnaps *Psychologie in physikalischer Sprache*.** (Behaviorism and Gestalt psychology. Critical remarks on Carnap's *Psychologie in physikalischer Sprache*.) *Erkenntnis*, 1932, **3**, 162–176.—*W. S. Hunter* (Clark).

1656. **Eckhardt, K., & Schüssler, H. Psychologischer Beobachtungsbogen nebst Anleitungsheft und Gesundheitsschein.** (Psychological observation blank with supplementary booklet and health chart.) Langensalza: Beltz, 1932. Blanks each 9 pf., booklet pp. 27, 80 pf., chart 9 pf.—These observation blanks are divided into three groups. The first contains a series of specific questions. The dangers of a too narrow range of observation, of suggestion and of misuse are obvious. The second group, avoiding questions, suggests a scheme for the observational viewpoint. It guides the user with regard to observational method but does not answer specific questions. The health chart for infants is similar in this respect. The third group allows an even greater latitude of observation. The blanks are here little more than sheets of white paper. A booklet accompanying these gives the information necessary for their use. The employment of these blanks presupposes a thorough training in psychology such that diagnoses can be made without the aid of specific questions. The psychological observation blanks are contained in this group. The supplementary booklet contains a bibliography and a detailed example based on the principles of Adlerian individual psychology.—*H. Schüssler* (Frankfurt a. M.).

1657. **Edgell, B. Current constructive theories in psychology.** *Nature*, 1932, **130**, 388–391.—The author speaks of the confusion of logical and psychological analysis in Locke's *Essay Concerning Human Understanding* and expresses the opinion that implicit in this confusion and in the disparity of the two unreconciled principles of knowledge (intrinsic relation and temporal sequence or coincidence) lie the lines of cleavage which are clearly manifest in the diverse constructive theories put forward today.—*E. H. Kemp* (Clark).

1658. **Franz, S. I., & Gordon, K. Psychology.** New York, London: McGraw-Hill, 1933. Pp. xvii + 494. $2.50.—A textbook of elementary psychology written with eight collaborators representing different interests and different specialized training. The book is not built around any one systematic concept but instead is written from an "eclectic" viewpoint, thus giving the student a broad view of the important facts and working concepts with their relations to psychological theory. The authors have kept in view the needs of the elementary student and reader by providing psychological fundamentals of use in the various walks of life. The text is divided into five parts, as follows: Part I discusses the origin of psychology; Part II discusses the general aspects of mind, with chapters on will and personality, intelligence, and feeling and emotion; Part III discusses psychological foundations, with chapters on learning, basic activities, nervous structures and functions, and sensation; Part IV discusses mental activities, with chapters on association, perception, attention, and imagination; Part V discusses the schools of psychology. One of the features of the book is the manner in which the authors have presented the chapter dealing with the nervous system and its functions. The textbook has a companion volume entitled *Psychology Work Book* which contains reading references, demonstrations, and class experiments.—*C. C. Neet* (Clark).

1659. **Geymonat, L. Alcune osservazioni sulla teoria einsteiniana della relatività, nei suoi rapport con la psicologia.** (A few remarks on the Einstein theory of relativity in its relations to psychology.) *Arch. ital. di psicol.*, 1932, **10**, 103–111.—Affirming the necessity for contact between the various sciences, the author examines from a logical-psychological point of view the foundations of Einstein's theory of relativity, noting that doctrine's recognition of the subjective factor in physics. He discusses the difficulties inherent in Einstein's conception of simultaneity, and in conclusion reaffirms the great importance of the theory of relativity outside the physico-mathematical field.—*R. E. Schwarz* (V. A. Hospital, Northport, L. I.).

1660. **Goldschmidt, R. H. Psychologisches Vademecum. Vorbegriffe, Fragen und Leitgedanken zu einer Psychologie als eine Erfahrungswissenschaft vom Seelischen. Lfg. 1.** (Psychological Vademecum. Preliminary concepts, questions and principles for a psychology as an experiential science of the mental. Pt. 1.) Bonn: K. Schroeder, 1930. Pp. 32.—(Not seen).

1661. **Guillaume, P. L'objectivité en psychologie.** (Objectivity in psychology.) *J. de psychol.*, 1932, **29**, 682–743.—Feeling that the development of objective methods is perhaps the most striking characteristic of contemporary psychology, the author examines the various implications of objectivity. He comes to the conclusion that "the objective method is . . . not a hazardous innovation, since the study of behavior is as old as humanity. It by no means implies exclusion of other procedures, since inner observation can itself be incorporated in this method, broadly envisaged. All of our knowledge of mental life has been acquired. The [objective] movement appears to be an effort to obtain more complete freedom from metaphysics, in this field of science as in others, and to apply in an increasingly rigorous manner the method common to all scientific research." The author makes use of the investigations on representative factors in animals (Tinklepaugh, Maier, etc.) to show that introspection is not required in order to obtain data on higher processes.—*N. L. Munn* (Pittsburgh).

1662. **Handtmann, E. Der 10. internationale Kongress für Psychologie abgehalten in Kopenhagen vom 21.–27. August 1932.** (The tenth International Congress of Psychology, held in Copenhagen August 21–27, 1932.) *Zsch. f. Religionspsychol.*, 1932, 5, 241–248.—*A. Römer* (Gautzsch bei Leipzig).

1663. **Helson, H. The fundamental propositions of Gestalt psychology.** *Psychol. Rev.*, 1933, 40, 13–32.—114 propositions, all of which have been affirmed of their theory by one or more Gestalt psychologists, are here gathered together under the following seven headings: (1) what configurations are and are not; (2) specific properties of configurations; (3) types of configuration; (4) laws governing configurational change; (5) the relation of configurations to their members; (6) the relations of members to their configurations; and (7) general factors favoring configurational phenomena. Some of the propositions are new and result from investigations conducted by the author. Each proposition is accompanied by the names of its sponsors, and unfamiliar propositions are accompanied by examples.—*A. G. Bills* (Chicago).

1664. **Heyer, G. R. Der Organismus der Seele.** (The organism of the mind.) Munich: J. F. Lehmanns Verl., 1932. Pp. 151. M. 4.80.—*R. R. Willoughby* (Clark).

1665. **Heymans, G. Einführung in die spezielle Psychologie.** (An introduction to special psychology.) Leipzig: Barth, 1932. Pp. 344. RM. 15, 17.—Heymans arrived at his knowledge of the field of special psychology by the use of exact statistical methods. This introduction, the last work of the author, is a systematic summary of this work. It is an exhaustive study which will be of interest to the specialist, and to those who are not professional psychologists but are interested in such questions. The first section deals with "method in general" and places the statistical method in the foreground. The second section deals with the secondary functions, perception and imagination, memory, the course of ideas, and the influence of ideas upon perception, the intellectual types, feeling, the will, and behavior. The third section has to do with the complex psychological types of Heymans' well-known classification. A study of 100 biographies and 2,500 psychographs of the official hereditary type, which is added as an appendix, lays the groundwork and gives empirical basis for the eight types. In the fourth section we find a classification based upon a natural grouping: the psychology of sex, of children, of puberty, of old age. The fifth section is concerned with some of the social groups: the artist, the criminal, and the tramp. The last section is devoted to a consideration of the formation of character.—*F. van Binnendijk* (Groningen).

1666. **Hungerford, H. Bunkless psychology; facing the facts on both sides of yourself.** Washington, D. C.: Green Lamp League, 1932. Pp. 114. $1.00.—*R. R. Willoughby* (Clark).

1667. **Leonhardt, C. Vorschläge zu einer psychologischen Beweisführung in ihren Grundgedanken.** (Suggestions on the bases of psychological demonstration.) *Arch. f. d. ges. Psychol.*, 1932, 84, No. 1–2.—*W. S. Hunter* (Clark).

1668. **Luca, G. Ergografo per i movimenti di flessione ed estensione.** (Ergograph for movements of flexion and extension.) *Riv. di psicol.*, 1932, 28, 185–193.—The author describes a new type of ergograph with which ergographic curves may be obtained for movements of flexion or extension of the middle finger.—*T. M. Abel* (Sarah Lawrence).

1669. **Lumley, F. H. An evaluation of fifteen radio talks in psychology by means of listeners' reports.** *Psychol. Bull.*, 1932, 29, 753–764.—Reports obtained from listeners to talks sponsored by the National Advisory Council on Radio in Education were analyzed by the age, sex, and occupation of the listeners and the conditions under which they listened, and with reference to vocabularies and topics of the speakers. Some recommendations are offered to those intending to deliver psychology talks over the radio.—*J. F. Dashiell* (North Carolina).

1670. **Mace, C. A. Faculties and instincts.** *Mind*, 1931, 40, No. 157.—*W. S. Hunter* (Clark).

1671. **McGeoch, J. A. The formal criteria of a systematic psychology.** *Psychol. Rev.*, 1933, 40, 1–12.—By a psychological system is meant, not an *a priori* construct, but a coherent and inclusive, yet flexible, organization and interpretation of the facts and special theories of psychology. Those problems which are considered basic as requirements for such a system are the following: (1) a definition of the field; (2) a statement of the few essential postulates; (3) a determination of the character of the data to be studied, whether subjective or objective, quantitative or qualitative, and the units of description; (4) a mind-body position; (5) principles of connection, and (6) principles of selection which shall account for the organization of the data.—*A. G. Bills* (Chicago).

1672. **Metfessel, M. Student's guide for demonstrations of psychological experiments.** New York: McGraw-Hill, 1932. Pp. xi + 45. $1.00.—An exercise book of experiments designed to accompany readings from several of the current texts of elementary psychology. The exercises are adapted for use in large classes. Space is provided in the book for the recording of results. Adequate forms of apparatus are described for each experiment, even though the equipment for some exercises can be manipulated by only one or two of the students as a demonstration for the others.—*M. N. Hulin* (Princeton, N. J.).

1673. **Müller, H. v. Leib und Seele.** (Body and soul.) *Psychol. Rundschau*, 1933, 4, 193–200.—The article traces the concepts of the body-soul relationship from primitive times, when soul was not recognized, through the myths of many peoples, down through the clear discrimination held by the church, and to the recent psychological attitudes which do not posit the soul as an entity. He argues that the study of the body still leaves the soul unexplained. He elucidates the body-soul parallelism as against the causal relationship. In actuality body and soul

are one, separable only in thought and separated only for study.—*A. B. Herrig* (Michigan Central State Teachers College).

1674. **Ponzo, M. Tendenze odierne della psicologia sperimentale come scienza del dinamismo della vita psichica.** (Present-day tendencies of experimental psychology as the science of the dynamism of the mental life.) *Arch. ital. di psicol.*, 1932, **10**, 69–101.—Modern experimental psychology is based on the recognition of the individual and the importance of behavior. The author discusses this, maintaining that the central factor in mental activity is action, and demonstrating the relation between mental functions and overt actions. The whole mental dynamism converges, according to him, toward adaptation to the various forms of behavior. To psychology, as a science devoted to the study of behavior, vast horizons of practical application are open, which are herein discussed briefly, together with the reasons for the crises in the development of scientific psychology in the past 30 years.—*R. E. Schwarz* (V. A. Hospital, Northport, L. I.).

1675. **Radecki, W. Tratado de psychologia.** (Treatise on psychology.) Rio de Janeiro: Imprensa Militar, Estado-Maior do Exercito, 1929. Pp. 447.—A textbook of psychology composed of lectures delivered by the author. It is clear in style, orderly in the arrangement of material, and practical in character. The author defends introspection and advocates the return to parallelism, not as a philosophical doctrine but as a working hypothesis in psychological investigations. He accepts the results of physiological psychology, confining himself to the facts without particular attention to theoretical attitudes.—*R. E. Schwarz* (V. A. Hospital, Northport, L. I.).

1676. **Ritter, W. E. Why Aristotle invented the word Entelechia.** *Quart. Rev. Biol.*, 1932, **7**, 377–404. An analysis of what Aristotle meant and its applications to physics, biology and psychobiology, with special reference, in this part of the continued article, to genetics and embryology.—*O. W. Richards* (Yale).

1677. **Rubin, E. L'inachèvement forcé de la connaissance dans la philosophie de Höffding.** (The necessary incompleteness of knowledge in Höffding's philosophy.) *J. de psychol.*, 1932, **29**, 673–681.—*N. L. Munn* (Pittsburgh).

1678. **Stanley, L. L., & Tescher, G. L. Sleep recording apparatus.** *Med. J. & Rec.*, 1931, **134**, No. 12.—*W. S. Hunter* (Clark).

1679. **Washburn, R. W. A device for making the records of observations of behavior more precise.** *J. Comp. Psychol.* 1932, **14**, 331–333.—A simple device is shown comprising a clip lap-board, a guide for the hand while writing under conditions where the experimenter cannot look at the paper, and a time marker which ticks off the seconds.—*N. L. Munn* (Pittsburgh).

1680. **Yonkman, F. F. Improved kymograph recording.** *Science*, 1933, **77**, 172.—A description of a method of kymograph recording in which cellophane has been used as the tracing surface. This type of recording requires no smoking or fixing, the cellophane is an excellent recipient for India ink and colored inks, and parts of the record can be used directly in a projection lantern without photographing.—*P. Seckler* (Clark).

[See also abstracts 1760, 1802, 1838, 2033.]

SENSATION AND PERCEPTION

1681. **Aburel, E., & Kapri, M. Récherches sur la sensibilité viscérale. La chronaxie sensitive du nerf présacré.** (Researches on visceral sensitivity. The sensory chronaxy of the presacral nerve.) *C. r. Soc. biol.*, 1932, **110**, 813–814.—The presacral nerve is an important nervous pedicle of the pelvic hypogastric plexus, whose sensitivity has been studied by means of the chronaximetric set-up of Lapicque, intercalating a resistance of 20,000 ohms. It appears from these experiments that this nerve contains sensory fibers.—*Math. H. Piéron* (Sorbonne).

1682. **Adrian, E. D., Bronk, D. W., & Phillips, G. The nervous origin of the Wever and Bray effect.** *J. Physiol.*, 1931, **73**, 2P–3P.—The authors report experiments which favor the nervous origin of the Wever-Bray effect. The long survival period of the effect after the death of the animal or after failure of the blood supply, the effects of cocaine injection and of cooling the cochlea are considered. In the first case, "The persistence of the effect in the absence of blood supply does not rule out a nervous origin, for peripheral sense organs and nerves may remain excitable for long periods after removal from the body." In the second case, the injection of 10–20% cocaine into the guinea pig's cochlea caused a rapid failure of the effect while the injection of saline solution did not. In the third place, cooling the cochlea of the guinea pig weakens the effect; and there is complete recovery with a return to normal temperature, if the circulation is intact.—*W. S. Hunter* (Clark).

1683. **[Anon.] Blind reading print by sound.** *Nature*, 1932, **129**, 52–308.—*E. H. Kemp* (Clark).

1684. **[Anon.] Vision.** *Nature*, 1932, **129**, 947–948.—A report of a joint discussion on vision held by the Physical and Optical Societies on June 3, 1932. Papers were presented by Guild, Hecht, Ferree and Rand, Creed, Hartridge, Granit, Allen, Wright, Roaf, Houston, and others.—*E. H. Kemp* (Clark).

1685. **Aubrun, E. A. Prurit et hyperesthésie par énervation sensitive partielle (soi-disant "pelade expérimentale" de Max Joseph).** (Pruritus and hyperesthesia by partial sensory enervation; so-called "experimental alopecia" of Max Joseph.) *C. r. Soc. biol.*, 1932, **110**, 823–825.—What is called the "experimental alopecia" of Max Joseph is nothing but an alopecia due to consecutive scratching at a pruritus which develops in a hyperesthetic cutaneous zone, produced by the partial section of the sensitive nerves which distribute there.—*Math. H. Piéron* (Sorbonne).

1686. **Barrett, J. W. The causation of myopia.** *Brit. J. Ophth.*, 1932, **16**, 764–765.—The suggestion that defective calcium metabolism might account

for the posterior staphyloma recalled the work done by the author and Lang on the refraction of the eyes of mammalia (*Ophth. Hosp. Rep.*, 11, part 2). They never found, with the possible exception of two monkeys, any wild animal whose eyes were myopic, but found a number of completely or partly domesticated animals which were myopic. It was then indicated that some condition of malnutrition was a factor. "The following are the results we obtained after a engthy investigation. Atropine was used for nearly all the smaller animals. Among the animals examined myopia, including mixed astigmatism, was found as follows: rabbits, 6 in 52 eyes; guinea pigs, 5 in 26 eyes; mice, none in 10 eyes; white rats (half wild), 1 in 10 eyes; cows, 1 in 10 eyes; horses, none in 6 eyes; cats, 4 in 14 eyes; dogs, 2 in 6 eyes. The myopia was under 2D. except in guinea pigs, where it was much higher in degree. As many of the eyes were emmetropic by retinoscopy there may have been some additional instances of slight myopia. The following wild animals were examined: 3 deer, 1 jackal, 1 peccary, 1 paradoxus cat, 1 genet cat, 1 Australian native cat, 1 mongoose, 2 hyenas, 1 opossum, 1 porcupine. None of these were myopic. Of eleven monkeys two were myopic, but we were unable to ascertain how long the monkeys had been in captivity. From these facts there emerges one definite conclusion, that the prolonged use of eyes for near work is not by any means the chief factor in causation, though it may well be a powerful source of aggravation."—*R. J. Beitel, Jr.* (Clark).

1687. **Blakeslee, A. F., & Salmon, M. R. Odor and taste blindness.** *Eug. News*, 1931, 16, No. 7.—*W. S. Hunter* (Clark).

1688. **Bujas, R. Ueber den Zusammenhang zwischen positiven und negativen Nachbild.** (The relation between the positive and negative after-images.) *Indus. Psychotechn.*, 1932, 9, 383–384.—By adaptation to a continued visual stimulus a functional change occurs in the eye so that the specific sensitivity is lowered for that stimulus. This change is not fatigue, as maintained by Helmholtz, but a reëstablishment of a dynamic equilibrium between the visual organ and the environment. If the visual organ is completely adapted to the stimulus no sensation occurs: "We sense only that to which we are not adapted." The sensitivity of the retina is thus dependent upon two factors, the condition of the visual organ and the external stimuli. According to this, the positive after-image is explained in the following way: after adaptation to a visual stimulus the visual organ is in an active condition which causes a decrease in sensitivity. When the stimulation ceases the eye is adjusted to the previous stimuli, but not to the new situation; therefore a sensation must occur. If no other stimulation reaches the eye, the quality of the sensation is like the object. But if after adaptation the new situation brings new optical stimulation, or an addition to the previous ones, then one senses from this mixture of stimuli only the components to which one is not adjusted. Thus, if after adaptation to red one looks at an orange background, one sees a yellow after-image, and after adaptation to yellow, a red after-image. The after-image has thus the quality of those components which remain after one has subtracted the stimuli to which one was adapted. The negative after-image and the achromatic after-image are explained in the same fashion.—*C. Burri* (Chicago).

1689. **Charpentier, R. Nouvelles réflexions sur la physiologie de la douleur.** (New reflections on the physiology of pain.) *Prog. med.*, 1932, No. 37, 1545–1549.—*Math. H. Piéron* (Sorbonne).

1690. **Crowe, S. J. Investigations on the underlying causes of deafness.** *Harvey Lectures*, 1932, Series 27, 100–127. Baltimore, 1932.—A summary of research conducted on the problem in the Otological Laboratory of Johns Hopkins University.—*C. H. Graham* (Clark).

1691. **Duke-Elder, W. S. An investigation into the effect upon the eyes of occupations involving close work.** *Brit. J. Ophth.* 1930, 14, No. 12.—*W. S. Hunter* (Clark).

1692. **Ferguson, A. Quantitative estimates of sensory events.** *Nature*, 1932, 130, 334–336.—Recent contributions of R. A. Houston and L. F. Richardson to the problem of the quantitative measurement of sensation are reviewed.—*E. H. Kemp* (Clark).

1693. **Gros, B. J. L'éblouissement retinien.** (Retinal contrast.) Thèse de méd. de Paris, 1932. Pp. 68.—It seems that the measurement of retinal contrast is rigorous only when it utilizes to this effect the quantitative modifications of the elementary functions of the retina (light threshold, differential threshold, sense of form) rather than psychomotor reactions which do not constitute the most direct elements. Unfortunately, these measurements are not always possible; for example, the measurement of the absolute light threshold and of the differential fraction after illumination of a part of the retina (successive contrast) is not always possible in all cases where positive scotoma gives place to an apparently heightened brightness which obscures the phenomenon to be measured. In the same way in simultaneous contrast the lowering of the absolute light threshold near the contrasting border results in a study of the differential fraction under conditions equivalent to those which create photometrically borders of insufficient initial brightness; under these conditions the true value of the differential fraction escapes observation. The elementary functions cannot, then, be indifferently taken one for the other as tests in a group of determined cases. The extent of visual acuity as a function of brightness remains the only practical measure of intense contrast.—*Math. H. Piéron* (Sorbonne).

1694. **Hartridge, H. Theories of hearing.** *Nature*, 1932, 130, 153–156.—The telephone theory of audition is compared with the resonance theory of audition in the light of evidence supporting and contradicting each, and it is concluded that "it would seem at the present time that the resonance theory accounts satisfactorily for all the phenomena of hearing, and that no other theory does this."—*E. H. Kemp* (Clark).

1695. **Hausmann, T. Tastversuche mit dem elektrosmotisch gänzlich anästhesierten Finger.** (Tactual experiments with the finger completely anesthetized by electro-osmosis.) *Zsch. f. Sinnesphysiol.*, 1931, **62**, 141–157.—Using the method of anesthesia by electro-osmosis recommended by Rein, the author studied the perception of surfaces and differences in level by the finger and the rim of the fingernail. Though the finger was completely anesthetized, including the elimination of deep-pressure sensations, the perception and differentiation of the character of surfaces (e. g., roughness) was possible to a certain extent. This took place with the aid of vibration sensations, whose receptors probably lie in the bones. Differences in level can be perceived with the help of kinesthetic sensations if the finger is moved; the same is true of the rim of the finger-nail. In medical palpation structures which are generally not accessible to touch can be felt by means of kinesthetic sensations aroused by the execution of definite hand movements. The touch sensitivity of the finger tips is less important than properly executed movements of the hand. Higher processes, such as intelligence, attention, etc., essentially determine the results of the use of the touch sense.—*F. W. Irwin* (Pennsylvania).

1696. **Kantor, D. W. Zur Myopiefrage der Schriftsetzer in nationalen Aspekte.** (National aspects of the question of myopia in compositors.) *Zsch. f. Augenhk.*, 1930, **72**.—*W. S. Hunter* (Clark).

1697. **Kisselevsky, —. [Definition of the olfactory threshold.]** *Voenno Med. J.* (Leningrad), 1932, **2**, 248–251.—*A. Yarmolenko* (Leningrad).

1698. **Kochanovsky, T. Y. [The relative value of investigations of color perception in professional selection.]** *Voenno Med. J.* (Leningrad), 1932, **2**, 551–556.—*A. Yarmolenko* (Leningrad).

1699. **Kormann, F. Die Erzeugung eines kontinuierlichen Spektrums auf Grund der Benhamschen Farben.** (The generation of a continuous spectrum on the basis of the Benham colors.) *Zsch. f. Sinnesphysiol.*, 1931, **62**, 158–166.—A continuous spectrum can be obtained by the use of a revolving kymograph surface with a certain configuration of black and white. This is an improvement over the original Benham disk. Blue and violet on the kymograph exchange places in comparison with the same colors in the prismatic spectrum, but otherwise an agreement exists between the two which cannot be due to chance. The concept of *intermittent* light does not, by itself, provide an adequate explanation of the phenomena, but must be supplemented by the idea of *movement*. The facts are important for color theory.—*F. W. Irwin* (Pennsylvania).

1700. **Le Grand, Y. Sur l'acuité du sens des variations de convergence.** (On the acuity of the sense of variations of convergence.) *C. r. Acad. sci.*, 1932, **195**, 176–178.—The impression of binocular relief by stereoscopic parallax and the variations of convergence are noted in the passage of fixation from one point to another nearer or farther away. An acuity corresponds to each of these modes. In instantaneous vision (appearance of a flash at one point when the antecedent fixation was at another point) the acuity of the parallax is about 5 sec., which represents the value for which the judgments of relative position are exact in 75% of the cases. In alternate vision of two points (flashes lighting one after the other) one avoids the parallax, and the fixation goes from one point to the other. In this case the mean value is 23 sec. If the 5 sec. necessary to the perception of relief are deducted, 18 sec. remain, which value indicates the exactitude and acuity of the sense of variations of convergence.—*Math. H. Piéron* (Sorbonne).

1701. **Long, J. A. Motor abilities of deaf children.** *Teach. Coll. Contrib. Educ.*, 1932, No. 514. Pp. 67.—An experimental group of 51 Jewish boys and 36 Jewish girls, 8 to 17 years old, of the Institution for the Improved Instruction of Deaf Mutes are compared with a group of normal hearing subjects of the same race, age and sex, taken from the Hebrew Orphan Asylum. The tests used—spool-packing, serial discrimination, pursuit rotor, tapping, motility rotor, strength of grip, and balance—are described in detail and diagrammed. The deaf boys proved superior to hearing boys, and deaf girls inferior to hearing girls, but when the sexes are combined the groups are nearly equal. The balance test was the only one in which a significant difference was found, the deaf being inferior. "Deaf and hearing persons are not widely different in motor ability in general." Bibliography of 29 titles.—*J. M. Stalnaker* (Chicago).

1702. **Lux, F. Die Akkommodation des Auges eine Funktion der Osmose?** (Is the accommodation of the eye a function of osmosis?) *Zsch. f. Sinnesphysiol.*, 1931, **62**, 203–204.—Evidence that lens accommodation is a function of osmosis is given, with a description of the experimental procedure employed.—*F. W. Irwin* (Pennsylvania).

1703. **Müller, H. K. Akkommodation im Greisenalter oder Linse mit doppeltem Brennpunkt?** (Accommodation in old age or lens with double focus?) *Zsch. f. Sinnesphysiol.*, 1931, **62**, 137–140.—Description of a case of double focus in a patient of 78 years. The methods of differentiating between the capacity for accommodation and the lens with double focus are described, with caution against too ready diagnosis of the former. Nine references.—*F. W. Irwin* (Pennsylvania).

1704. **Natvig, H. Hemeralopia idiopathica og vitaminhunger på landsbygden.** (Hemeralopia idiopathica and vitamin hunger in the country.) *Tidsskr. f. d. norsk. laegeforen.*, 1933, **53**, 73–75.—A rare case of "night-blindness" in a 14-year-old boy, evidently due entirely to lack of vitamin A in his unbalanced country diet. The blindness was cured by cod-liver oil within four days.—*M. L. Reymert* (Mooseheart Laboratory for Child Research).

1705. **Piéron, H. Les temps de réaction au chroma en excitation isolumineuse.** (The reaction time to chroma in isoluminous excitation.) *C. r. Soc. biol.* 1932, **111**, 380–383.—The experiments were made with a spectro-colorimeter which permits quick substitution, in a photometric cube, of one flux for another previously regulated to an equal level of luminosity

which permits the measurement of reaction time to a chromatic excitation without modification of the perceived luminosity. The author examined the influence upon reaction time: (1) of the level of brightness (reaction time is shorter as the level of brightness is heightened); (2) of degree of purity (at equal levels of brightness the reaction time is shorter as the saturation of the excitatory color is greater); (3) of the specific action of colors (it appears that, everything else being equal, the establishment of blue chroma is slower than that of red chroma); (4) of the influence of antecedent chroma (there is no difference of time when the chromatic excitation appears after shining in a white light or in a complementary light, which permits the conclusion that if there really are photochemical processes independent of the basis of excitation of the fundamentals, these processes are put into play with a minimum of quantitative difference by all the spectral lights, as Hecht admits.—*Math. H. Piéron* (Sorbonne).

1706. **Pikler, J. Das den Flächen anliegende Licht als Mass ihrer Farbe.** (Light adjacent to surfaces as a measure of their color.) *Zsch. f. Psychol.*, 1931, **123**, Nos. 1–3.—*W. S. Hunter* (Clark).

1707. **Ponthus, P. Influence du flux énergétique des tests lumineux blancs ou colorés sur l'étendue du champ visuel.** (Influence of the energy flux of white or colored light tests upon the extent of the visual field.) *C. r. Soc. biol.*, 1932, **109**, 1057–1060.—The extent of the field of vision of monochromatic colors varies with the energy flux emitted by the test objects. When colored test objects possess sufficient energy flux, they produce visual fields having practically the same peripheral limits as the white. If the energy flux is equal and not very intense, the fields of simple colors then become smaller than the white, and unequal to each other, decreasing in the order: red, yellow, blue, green. The visual field of green remains always less extended than that of other colors of equal energy. If it is admitted, says the author, that the visual fields of colors are very unequal, it is because the measurement is taken with stimuli of very different energy.—*Math. H. Piéron* (Sorbonne).

1708. **Ponthus, P. Sur l'inégale sensibilité aux couleurs des parties periphériques de la rétine.** (On the unequal sensitivity to colors of the peripheral parts of the retina.) *C. r. Soc. biol.*, 1932, **110**, 854–856.—At equal energy the retina would be impressed first by green, then by red and violet, so that the decrease in extent of the visual field would be in the order: green, red, violet. The facts show that the decrease is in the order: red, violet, green, and the remaining part of the visual field is not superior, at equal energy, to that of red. It seems to the author that a given retinal element possesses an unequal sensitivity to the perception of the three colors, without which it would be possible to explain this fact by simple physical relationships.—*Math. H. Piéron* (Sorbonne).

1709. **Ronchi, —. Sull' acuità visuale.** (Visual acuity.) *Boll. d'ocul.*, 1932 (March).—The value of visual acuity is purely experimental; it is not possible to correlate the power of resolution of the eye with the anatomical arrangement of the cones at the macula. Vision is not simply the formation of an image on the retina; there are many other psychological factors, varying with the individual, which make it impossible to formulate purely physiological laws for its estimation.—*R. J. Beitel, Jr.* (Clark).

1710. **Schaeffer, H. Messende Untersuchungen an Nachbildern.** (Quantitative investigations of after-images.) *Zsch. f. Sinnesphysiol.*, 1932, **62**, 205–245.—The phasic disappearance of strong after-images is described and explained as the result of conflict between after-excitation of the retina and central adaptation (Ebbecke). The same processes occur in the dark-adapted eye. The brightness of negative after-images is affected by that of the background, but this is not true of positive after-images (except for contrast effects). Results of experiments varying exposure time and intensity of stimulation are given and interpreted as confirming Ebbecke's theory. A method of measuring the strength of central adaptation is described. After-images from short exposure times have certain peculiarities. The duration of the retinal after-excitation is an exponential function of the illumination time. The after-excitation falls rapidly from its original intensity to a relatively constant level; it has chromatic results. An explanation of the appearance of bright positive after-images in the later stages of the after-image is given.—*F. W. Irwin* (Pennsylvania).

1711. **Schumann, F., & Blug, A. Untersuchungen über die Wahrnehmung der Bewegung durch das Auge. V. Neue Untersuchungen über Scheinbewegungen bei tachistoskopischen Betrachtungen.** (Studies in the perception of movement by means of the eye. V. New studies of apparent movement with tachistoscopic observation.) *Zsch. f. Psychol.*, 1932, **127**, 290–324.—Phenomena of apparent movement are enhanced when exposition is accompanied by a difference in brightness of illumination between presented object and tachistoscopic field. Various tachistoscopically produced types of apparent movement were studied under these conditions. Enhancement of movement phenomena was demonstrated (1) in single still pictures with movement indicated within the pictures, (2) in the transition from one phase to the other of the Müller-Lyer illusion, (3) in the contrast movement of Ehrenstein, and (4) when several different apparent movements were produced simultaneously in the same field. It was found (5) that the "gray flash" (Dimmick), observed in experiments on the phi phenomenon, could be seen only when the brightness of the object field differed from that of the tachistoscope field, never when the two fields were unitarily illuminated.—*R. B. MacLeod* (Cornell).

1712. **Senden, M. v. Raum- und Gestaltauffassung des operierten Blindgeborenen vor und nach der Operation.** (Space and form apprehension of persons born blind before and after operation.) Leipzig: Barth, 1932. Pp. ix + 303. RM. 10.—This is an analysis of spatial and tactual impressions as experienced by persons who, though born blind, have

regained their sight by surgical operation. It lists and discusses approximately 100 known cases. The blind person erects for himself an environment of temporal sequences. He is able to appreciate only schematic arrangements in which non-spatial characteristics are especially significant. His own bodily movements are also experienced as dynamic, not spatial. He uses spatial expressions, of course, but they are lacking in meaningful content. It is only with vision that their real meaning is obtained. The process of learning to see shows that depth perception is not the result of a synthesis of impressions nor of a mental abstraction. It is a kind of perception which incorporates visual perspective in every act of seeing. The perception of form develops in a series of clearly distinguishable phases. It is a purely individual matter, bound up with the patient's own mental activity. The process by which apprehension of the visual world develops is accelerated, however, by the increased mechanization derived from the ever-growing store of memory images and structural sequences. The patient himself frequently resists the transition which entering a world of vision demands of him. This calls for great pedagogic skill on the part of the physician or teacher. This aspect of the problem should in every case be carefully anticipated and prepared for, especially if science is to profit by the results of such operations. It is this which the book particularly emphasizes.—*M. v. Senden* (Kiel).

1713. **Székely, L. Ueber den Aufbau der Sinnesfunktionen.** (On the structure of the sensory functions.) *Zsch. f. Psychol.*, 1932, **127**, 227–264.—The traditional psychology, which attempts to explain the process and phenomena of perception as composites of simple, elementary processes and phenomena, coördinated in point-to-point fashion with simple peripheral stimuli and modified by central factors, must give place to a point of view which begins with an "exact subjectivism" (Tschermak) and regards the total perceptual process as the spatio-temporal functional interconnection (*Funktionszusammenhang*) of numerous factors. Sensory phenomena are found then to range in degree of organization between two poles. At one extreme is the primitive, unanalyzable "drive" consciousness suggested by the Freudian theory, which precedes all severance of object from subject; at the other extreme are the highly organized "object" perceptions, involving localization outside of ourselves in subjective space, in which the subjective reference has almost completely disappeared; and between these are the subjective perceptions localized in our own bodies. The fundamental problem of sense physiology becomes then to account in terms of stimulus and bodily process for these typically different levels of consciousness. The investigations of Head, Wertheimer, v. Hornbostel, Börnstein, and others point toward a theory which postulates more or less complicated levels of partial processes. One of these partial processes corresponds to the brightness aspect of all sensory phenomena. Experimental findings so far justify the following generalizations: (1) Brightness perception is a partial process underlying all sensory functions. (2) The brightnesses of different sense modalities may be compared and equated to each other. (3) The brightness process in one sense organ influences in a neural or hormonal way the brightness processes in other sense fields, and is intimately bound up with tonus processes. (4) The brightness level probably corresponds to the vibration frequency of the stimulus.—*R. B. MacLeod* (Cornell).

1714. **Weber, C. O. Versuche über Farbenkonstanz bei wechselnder Beleuchtung.** (Experiments on color constancy with changing illumination.) *Zsch. f. Psychol.*, 1932, **127**, 325–329.—The phenomenon of color constancy was found to be present even when the illumination was continuously changed within wide limits. This is a preliminary summary of experiments to be reported in full in a later publication.—*R. B. MacLeod* (Cornell).

1715. **Werner, H., & Schiller, P. v. Untersuchungen über Empfindung und Empfinden. 5. Rauigkeit als intermodale Erscheinung.** (Studies in sensation and sensory process. 5. Roughness as an intermodal phenomenon.) *Zsch. f. Psychol.*, 1932, **127**, 265–289.—In continuation of a previously published study of the dependence of visual fusion upon heteromodal stimulation, further experiments were made on the influence of visual interference stimuli on auditory, tactual and vibratory perception, and of auditory interference stimuli on tactual perception. It was found that under favorable conditions visual roughness (flicker) induced corresponding changes in the other modalities, and that auditory roughness influenced correspondingly tactual perception. Roughness is consequently considered to be a fundamental intermodal phenomenon. The exact conditions of roughness induction, the significance of individual differences and certain theoretical consequences are discussed.—*R. B. MacLeod* (Cornell).

1716. **Whittington, T. H. A new device for training and testing binocular vision.** *Brit. J. Ophth.*, 1932, **16**, No. 2.—*W. S. Hunter* (Clark).

1717. **Wilson, J. A. Twins with eye defects. Ametropia and strabismus.** *Brit. J. Ophth.*, 1932, **16**, 421–423.—Data upon the nature and degree of refractive error and the type of strabismus found in twelve pairs of twins (half of whom the author assumes are of monozygotic origin, since all pairs are of like sex and in several pairs the retinoscopies are alike) are contrasted with those found in 50 pairs of brothers and sisters born at different times, and not related to twins. Of the 12 pairs of twins: 25% are cases alike, 33.5% are cases approximately alike, 41.5% are cases with more than 1 D. of difference. In the first group, 5 of the 6 children are squinters; in the second group, 4 of the 8 children are squinters; in the third, 1 of the 10 children is a squinter. Of the 50 pairs of brothers and sisters: 14% are cases alike or with only 0.5 D. of difference, 16% are cases approximately alike, 70% are cases with more than 1 D. of difference.

In the first group there are 6 squinters, in the second 4, and in the third 31.—*R. J. Beitel, Jr.* (Clark).

[See also abstracts 1730, 1731, 1732, 1743, 1760, 1783, 1785, 1827, 1847, 1903, 1908, 1975, 2129.]

FEELING AND EMOTION

1718. **Beebe-Center, J. G. The psychology of pleasantness and unpleasantness.** New York: Van Nostrand, 1932. Pp. viii + 427. $3.75.—A comprehensive, technical discussion of the experimental and theoretical literature organized under the following headings: definition; experimental methods; the relation of hedonic tone to mental elements; hedonic tone in relation to primary external stimuli, secondary external stimuli, motivational factors, maturation and learning, muscular and glandular responses, memory, and nervous processes; and finally, the theory of hedonic tone. "Pleasantness and unpleasantness are concepts characterizing experience. They are quantitative variables so related to each other that they may be represented respectively by the positive and negative values of a single algebraic variable. This single variable we shall call hedonic tone." The method of single stimuli is rated the best of the methods of impression. No selection is made between the methods of expression because each deals with a separate problem. "The problem of the relation of hedonic tone to mental elements does not involve merely the data secured upon it, but the general theory of psychology." This problem may be best treated as at present non-existent. As a basis for future experimental work, the author presents the following hypothesis concerning the relation of hedonic tone to sense-organ processes: "Hedonic tone depends upon a specific type of process in sense-organs, namely, that which, under sensory instructions or their equivalent, mediates bright and dull pressure. When this type of process occurs under hedonic instructions or their equivalent, it gives rise to relative or absolute hedonic tone. . . . The process in question is invariably proprioceptive. It is aroused by external stimuli—e. g., visual stimuli—indirectly through the muscular adjustments which they bring about."—*W. S. Hunter* (Clark).

1719. **Brown, C. W. The central nervous mechanism for emotional response. I. Some limitations of previous investigations with suggestions for further experimental work.** *J. Comp. Psychol.*, 1932, **14**, 365–385.—A review, with bibliography of 22 references, of research on the relation between brain mechanisms and emotion. The author criticizes previous work for the following reasons: it has assumed a single central nervous mechanism behind emotion; it has failed to define the stimulating and response conditions with sufficient precision; it has lacked criteria for differentiating one emotional response from another; it has failed to isolate definite nuclear areas; it has been concerned almost entirely with sham rage; and it has failed to carry out sufficient controls. Four suggestions for further experimentation are offered.—*N. L. Munn* (Pittsburgh).

1720. **Carp, E. Quelques remarques sur la psychologie du dégoût.** (Some remarks on the psychology of disgust.) *Encéph.*, 1932, **27**, 107–112.—The feeling of disgust is in general manifested when the subject believes himself (actually or in his imagination) to be in contact with something repugnant. The child in his early youth has no feeling of disgust; he puts into his mouth (introjection) everything he wishes to understand, everything which he thinks can give him an agreeable sensory excitation. The Freudian school, for which the libido is a central force animating instinctive manifestations in the individual, admits into its theoretical formulations a so-called oral phase. It is during this period of infantile life that disgust appears, a negative trait born of circumstances and of the education which represses the erotic tendencies attached to the mouth.—*Math. H. Piéron* (Sorbonne).

1721. **Larson, J. A. Lying and its detection.** Chicago: Univ. of Chicago Press, 1932. Pp. $5.00.—The first few chapters treat of general definitions of lying, the nature of the process, its occurrence, and clarifications. The next division of the work treats of attempts at detection of deception from ancient times up to the beginning of modern laboratory methods. Here reference is made to judicial methods and it is pointed out that the same principles made use of in trial by combat, ordeal, or torture are still used in somewhat modified form by the police in crude attempts to extract the truth by the so-called "third degree" and by jury methods which all competent criminologists agree to be inefficacious. Following this, laboratory methods in the detection of deception are discussed beginning with Lombroso, treating with word association methods and reaction time, and then those procedures based on the more recent physiological methods of Benussi, Marston, and Burtt as original investigators. The pioneer work was followed by sporadic experiments on the part of graduate students working with laboratory situations in experimental studies of deception. Here the chief workers were Landis, Chappell, Jefferson, and others. An account is given of drug methods in the determination of innocence or guilt, with special reference to the use of scopolamine by House and the use of sodium amytal. The remainder of the work is devoted to the personal investigations of the writer and his associates, covering a period of some twelve years. Reference is made chiefly to the study of deception. The general position of the writer is that a deception test has proved to be of practical value when in the hands of suitably trained experts, but even then there will be limitations. He feels that these limitations are sufficient to interfere with any attempt to introduce deception test records into court for use as evidence. On the other hand he has already demonstrated for his associates working in the penitentiary that a deception test probably can be of inestimable value in the preliminary investigation of suspect cases, especially in the selection of the guilty individual and in assisting in securing evidence which may be used in judicial procedure. This work opens up an entirely new field in the investigation of crime and offers unlimited possibilities for those who are willing to

secure the necessary training and carry these investigations further. The importance of the integration of all methods of approach is constantly emphasized throughout the book, and the necessity for coöperation among the proper experts or that the one expert shall be properly trained in all the necessary fields, is stressed throughout.—*J. A. Larson* (Illinois Department of Public Welfare).

1722. **Wreschner, A. Das Gefühl.** (Feeling.) Leipzig: Quelle & Meyer, 1931. Pp. 193. M. 8. 60.—(Not seen).

[See also abstract 1829.]

ATTENTION, MEMORY AND THOUGHT

1723. **Fischl, J. Unsere Gedächtnisbilder; eine Untersuchung der Grundlegung des menschlichen Gedächtnisses.** (Our memory images; a study of the foundations of human memory.) Vienna: Mayer & Co., 1932. Pp. 210. 12 Sch.—All attempts thus far to explain memory in purely physiological terms have failed. Indeed, careful examination shows that this judgment also holds for the mnemic doctrine of Semon and that of resonance-analogy as set forth by Lindworsky. The need for a psychophysical explanation is therefore obvious. The Aristotelian doctrine of entelechy shows that the memory image is a psychically formed, continual modification of the brain molecule (*Hirnmolekül*). In this entelechy the entire store of images is a spatially indivisible unity. Every act of knowing actuates this store in proportion to its degree of similarity of form (*Gleichförmigkeit*) therewith. Only the greatest similarity of form determines conscious reproduction. Less complete excitation, however, always influences the total consciousness; this leads to sudden modifications of feeling tone (*Stimmung*) and impressions, to the construction of a double ego and to a latent alteration of the images. Nothing is wholly forgotten. Every successive excitation requires less energy (automatic behavior), but fixates images already had. All images are influenced when the store itself is modified. Hence every individual image is something of our entire knowledge and each spoken word reveals in similar fashion the total structure of mankind. It is this which constitutes the organization of spiritual life. Each new experience functions according to the number and fixity of images already present, and this is why childhood impressions are retained. The past is already experienced in youth.—*J. Fischl* (Graz).

1724. **Fortes, M. A study of cognitive error.** *Brit. J. Educ. Psychol.*, 1932, **2**, 297–318.—Summarizes and compares existing theories of cognitive error, and presents data from application of a battery of perceptual tests of "g" to 240 school children of both sexes with average age 13. The reliability of the six tests ranges from .3 to .9, the correlation with "g" from .5 to .7. Errors are found to be more dependent on qualitative conditions governing cognition than upon degree of intelligence. The results favor Spearman's theory of cognitive error if modified by Selz's emphasis on displacement rather than lack of retention.—*K. M. Cowdery* (Stanford).

1725. **Herbertz, R. Über die sog-annte "fausse reconnaissance."** (With regard to the so-called "false recognition.") *Psychol. Rundschau*, 1933, **4**, 223–228.—The author shows these cases of memory illusions to be rather widely distributed. He explains the difference between that which is known and that which is re-known. The thing which is re-known may appear identical or similar. In reality no recall experience is ever identical. The author holds, and quotes from Ebbinghaus, that the psychology of the past has failed to explain illusions of memory, while psychoanalysis of the subconscious does throw light upon them.—*A. B. Herrig* (Michigan Central State Teachers College).

1726. **Lewis, F. H. Note on the doctrine of memory-traces.** *Psychol. Rev.*, 1933, **40**, 90–97.—An examination, in the light of some experimental data, of Wheeler's rejection of the concept of memory-traces. The objections are mainly against the static and abstract implications with regard to something (i.e. the memorial pattern) which is actually a unified structure in time, for which the initial impression has no controlling significance. The experiment consisted of presenting two 100-word passages at an interval of ten minutes to six subjects with instruction to read twice. Verbatim recalls were asked for at intervals of 30 sec., 40 min., 24 hours, one week, and five weeks. The results show that memory is independent of particular words or sentence structures, although the meaning is preserved. Where particular contents do persist it is due to their relevance. It is concluded that Wheeler's contention is correct, and that the term "trace," if used, should mean not replica but *result* of the original neural process.—*A. G. Bills* (Chicago).

1727. **Montmasson, J. M. La réussité ou l'utilité témoignent-elles de la justesse de la pensée?** (Do success or utility prove the accuracy of thought?) *Psychol. et vie*, 1932, **6**, 80–82.—*Math. H. Piéron* (Sorbonne).

1728. **Storfer, A. J. Etwas erinnern—an etwas vergessen.** (To recall something—to forget something.) *Psychoanal. Bewegung*, 1932, **4**, 364–369.—The author comments on Freud's new use of the words *erinnern* (remember) and *vergessen* (forget), an unusual connotation in which the thing recalled becomes the object of the verb, whereas the usual form in which the verb is used is reflexive: *er erinnert sich* (recalls to himself). Muschg has made a study of this Freudian use in psychoanalysis with which the author disagrees, and in this article he compares Freud's use of the words with that of other writers, and analyzes Freud's meaning as he senses it.—*A. B. Herrig* (Michigan Central State Teachers College).

[See also abstracts 1793, 1888, 2035, 2078, 2079.]

NERVOUS SYSTEM

1729. **Adrian, E. D. The messages in sensory nerve fibers.** *Harvey Lectures*, 1931, Series 27, 57–66. Baltimore, 1932.—A short résumé of experiments and interpretations concerned with the activity of sensory

impulses as recorded by electrical methods.—*C. H. Graham* (Clark).

1730. **Aubrun, E. A. Action vasculaire et action du sympathique dans le prurit par énervation sensitive partielle.** (Vascular action and action of the sympathetic in pruritus by partial sensory enervation.) *C. r. Soc. biol.*, 1932, 111, 481–482.—The extirpation of the cervical sympathetic determines neither pruritus nor cutaneous lesion. Extirpation of the sympathetic does not prevent pruritus by partial sensory enervation; rather it seems to favor it.—*Math. H. Piéron* (Sorbonne).

1731. **Aubrun, E. A. Prurit et hyperesthésie par section nerveuse. Section du trijumeau isolée ou associée à celle des trois premiers nerfs cervicaux.** (Pruritus and hyperesthesia by nervous section. Section of the trigeminus isolated or associated with that of the three first cervical nerves.) *C. r. Soc. biol.*, 1932, 111, 464–466.—Initial hyperesthesia and pruritus produced by the section of the first spinal nerves in the second cervical dermatomere are transmitted to the nervous centers by the trigeminal nerve. Section of this nerve makes them disappear. Isolated section of the trigeminal produces the appearance of a hyperesthetic zone (pre-auricular region and anterior edge of the ear) innervated in common with the pneumogastric nerve.—*Math. H. Piéron* (Sorbonne).

1732. **Aubrun, E. A. Prurit et hyperesthésie par section nerveuse. Section des trois premiers nerfs cervicaux.** (Pruritus and hyperesthesia by nervous section. Section of the three first cervical nerves.) *C. r. Soc. biol.*, 1932, 111, 404–406.—Alopecic or exulcerous lesions of the cutaneous region which corresponds to the second cervical dermatomere appear consecutively to the interruption of the sensory branch of the second cervical nerve; they are limited to this zone and are not constant. The author experimented upon 36 cats to find whether section of the two other neighboring cervical nerves would prevent the appearance of the changes, and he found that on the contrary they were produced more often. These lesions are due to scratching as a consequence of pruritus, and appear upon partial sensory enervation of the cutaneous region, which still continues to be partially in connection with the central nervous system through the trigeminal and the fourth cervical nerve.—*Math. H. Piéron* (Sorbonne).

1733. **Barry, D. T. The functions of the great splanchnic nerves.** *J. Physiol.*, 1932, 75, 480–490.—Some present views on splanchnic function are briefly summarized. A new method is adopted for investigating the functions of the great splanchnic nerve in the dog and rabbit by splitting the trunk longitudinally into two or three branches and stimulating each separately. Branch stimulation sometimes causes fall of blood pressure, accompanied by inhibition, augmentation, or no change of intestinal movements. Marked increase of activity of intestinal movements is sometimes found with or without preliminary inhibition, a reaction which is similar to that given by stimulation of the vagus nerve, although here there is no evidence that the parasympathetic system is in play. The great splanchnic nerve in the dog contains hypotensive vascular fibers and augmentor intestinal fibers which, with the generally admitted fibers of opposite function in each case, constitute two reciprocal systems.—*M. A. Rubin* (Clark).

1734. **Bishop, G. H., & Bartley, S. H. Electrical activity of the cerebral cortex as compared to the action potential of excised nerve.** *Proc. Soc. Exper. Biol. & Med.*, 1932, 29, No: 6.—*W. S. Hunter* (Clark).

1735. **Bonvallet, M., & Rudeanu, A. Sur le rôle de l'écorce cérébrale dans la régulation des chronaxies motrices.** (On the rôle of the cerebral cortex in the regulation of motor chronaxies.) *C. r. Soc. biol.*, 1932, 111, 696–698.—Researches on the relation existing between the chronaxies of antagonists and the coördination of movements in the dog after ablation and section in the centers, in order to find out whether subordination is independent of the hemispheres. It results from these experiments that the regulation of the relation of the peripheral motor chronaxies of the antagonists does not appear to depend in any way upon the cortical motor centers or even upon corticality in general.—*Math. H. Piéron* (Sorbonne).

1736. **Chauchard, A. B, & Dumont, P. Les centres moteurs corticaux des cordes vocales. Etude chronaximétrique.** (The cortical motor centers of the vocal cords. A chronaximetric study.) *C. r. Soc. biol.*, 1932, 111, 692–693.—Excitation of a particular point in the cerebral cortex of the dog provokes movements of adduction of the vocal cords. The authors wished to measure by the chronaximetric method the excitability of this motor zone. For the movement of adduction, which is much easier to elicit than abduction, the chronaxy is 15 to 20 thousandths of a second. For abduction of about .3, the rheobase was three or four times weaker for the first than for the second.—*Math. H. Piéron* (Sorbonne).

1737. **Favill, J. Outline of the cranial nerves.** Chicago: Univ. of Chicago Press, 1933. Pp. 120. $1.50.—*R. R. Willoughby* (Clark).

1738. **Ferguson, J. H. The central nervous system in relation to the digestive functions.** *Proc. Soc. Exper. Biol. & Med.*, 1932, 30, 328–330.—Pilocarpine was injected into the cerebral ventricles or subcutaneously in a series of monkeys and the effects of the two types of injection of the drug on certain secretory, motor, and vascular phenomena compared. The drug was administered at various times during the digestion of a test meal. It was found that the intraventricular injection caused a sudden and complete cessation of the gastric secretion of free HCl, and that the total acid generally fell proportionately with the "free" acid. Cardiospasm was an almost constant sequel of intraventricular injection. Subcutaneous injection did not produce these effects. Several general effects of pilocarpine injections whether intraventricular or subcutaneous are listed.—*P. Seckler* (Clark).

1739. **Freeman, R. G., Jr., & Wechsler, D. Note on the correlation between chronaxie and reaction time.** *Proc. Soc. Exper. Biol. & Med.*, 1932, 29, No. 8.—*W. S. Hunter* (Clark).

1740. **Gasser, H. S., & Graham, H. T. Potentials produced in the spinal cord by stimulation of dorsal roots.** *Amer. J. Physiol.*, 1933, **103**, 303–320.—The potentials which develop in the spinal cord of the cat after threshold or submaximal stimulation of dorsal root fibers were recorded from electrodes placed on the dorsum of the cord. The first event was a spike attributable to the intramedullary course of the dorsal root fibers. It had the duration of that of the afferent fibers in peripheral nerve. When a root is stimulated by two shocks, the second intramedullary spike recovers over a curve determined by the root fibers; but the negative intermediary potential is restored much more slowly, not reaching its full magnitude until near the termination of the positive potential of the first response. Except for the refractoriness of the spike the same phenomena can be evoked when the shocks are applied to separate roots. The experiments indicate that the most probable origin of the intermediary potentials is in the internuncial neurones.—*C. Landis* (N. Y. Psychiatric Institute).

1741. **Grundfest, H. Heterochronism in the single fiber nerve-muscle complex of the retrolingual membrane.** *Proc. Soc. Exper. Biol. & Med.*, 1932, **29**, No. 4.—*W. S. Hunter* (Clark).

1742. **Hathaway, S., & Rasmussen, G. L. Simultaneous oscillographic records of sound waves and electric variations in the brain during avertin anesthesia.** *Proc. Soc. Exper. Biol. & Med.*, 1932, **29**, No. 4.—*W. S. Hunter* (Clark).

1743. **Heinbecker, P., Bishop, G. H., & Leary, J. O. Fibers in mixed nerves and their dorsal roots responsible for pain.** *Proc. Soc. Exper. Biol. & Med.* 1932, **29**, No. 8.—*W. S. Hunter* (Clark).

1744. **Heinbecker, P., & O'Leary, J. Nature and function of certain fibers of the vagus—a new concept in peripheral nerve organization.** *Proc. Soc. Exper. Biol. & Med.*, 1933, **30**, 506–508.—Studying action potentials and histological preparations from the vagus nerve of the cat, the senior author had previously demonstrated three distinguishable potential complexes which correlate with three different fiber types. Further work has shown that the vagus efferent fibers to the lungs and intestines, unlike those of the heart, have their cells of origin in the nodose ganglion. Emphasis is placed on the fact that they have a central and a peripheral process and that there is no evidence of a synaptic junction in this pathway through the nodose ganglion. Since the possibility of a sympathetic origin of the fibers in question has been excluded by further experimentation, the authors conclude that motor fibers exist in the vagus nerve whose cells of origin lie outside the central nervous system. Implications of these findings and their bearing on certain physiological questions are suggested.—*P. Seckler* (Clark).

1745. **Hill, A. V. Chemical wave transmission in nerves.** New York: Macmillan, 1932. Pp. ix + 74. $1.25.—*R. R. Willoughby* (Clark).

1746. **Kappers, C. U. A. The brain in prehistoric and recent races.** *Acta psychiat. et neur.* 1931, **6**, 505–528.—This is a general review of ethnological and comparative research on the brain, with special emphasis on the work of the author, who has discussed some of his methods and findings also at an earlier date in his book, *The Evolution of the Nervous System in Invertebrates, Vertebrates and Man* (De Ezver Bohn, Haarlem). Numerous cuts illustrate the article.—*M. L. Reymert* (Mooseheart Laboratory for Child Research).

1747. **Lafora, G. R. Métodos psicotécnicos aconsejables para el estudio de la neuroglia en los invertebrados.** (Psychotechnical methods suitable for the study of the neuroglia of invertebrates.) *Arch. de neurobiol.*, 1930, **10**, No. 3.—*W. S. Hunter* (Clark).

1748. **O'Leary, J. L., Heinbecker, P., & Bishop, G. H. Dorsal root fibers which contribute to the tract of Lissauer.** *Proc. Soc. Exper. Biol. & Med.* 1932, **30**, 302–303.—Taking the evidence that the small, thinly myelinated fibers of peripheral nerves are concerned with the conduction of pain, and that fiber elements in the tract of Lissauer of the spinal cord participate in the transmission of pain, the authors seek to determine how large is the number of small thinly myelinated fibers which enter this tract from the dorsal roots. Experimental results showed that a majority of the small thinly myelinated fibers as well as a similar proportion of the non-myelinated fibers are contributed to the tract of Lissauer by the dorsal roots. This finding that a significant number of small thinly myelinated fibers in the tract of Lissauer are derived from the dorsal roots eliminates one difficulty in inferring that pain is mediated by this group.—*P. Seckler* (Clark).

1749. **Pi Suner, A., & Raventos, J. Sur la sensibilité des organes pelviens.** (On the sensitivity of the pelvic organs.) *C. r. Soc. biol.*, 1932, **111**, 737–738.—Neither section of the medulla nor extirpation of the ganglionic chain prevents production of reflexes in the course of the distention of the pelvic organs (rectum and bladder). Nicotinization of the sympathetic ganglia after previous section of the medulla blocks nervous conduction of the reflexes of distention.—*Math. H. Piéron* (Sorbonne).

1750. **Porak, R. Psychophysiologie de l'homme. La détente du cycle neuromoteur.** (Psychophysiology of man. The lag of the neuro-motor cycle.) *Prog. med.*, 1932, No. 39, 1617–1627.—Life is a perpetual mutation of energy, and the convergence of external and internal influences gives to each moment of length a tonality which is specific to this displacement of energy. The author has found in thermogenesis a measurable function which is closely related to the state of dynamogenesis, which permits him to measure the loosening and checking of the daily rhythm.—*Math. H. Piéron* (Sorbonne).

1751. **Rushton, W. A. H. Identification of the gamma excitability in muscle.** *J. Physiol.*, 1932, **75**, 161–189.—When a muscle is excited through large fluid electrodes, two excitabilities α and γ are found. This paper attempts to identify the γ substance in conditions where the irregular terminations of the muscle are not excited and where the stimulating electric field is uniform. In these circumstances a variety

of experiments with movable electrodes justify the following conclusions, whence it appears that the γ excitability is certainly nerve: (1) the γ excitability has the same excitation time as nerve; (2) γ excitation time is like that of nerve and is nearly independent of electrode size; (3) the γ substance is in the form of fibers; (4) in the sartorius muscle these fibers start their course at the exact place where the nerves enter; (5) in the sartorius they run in many directions; (6) they are absent from the nerve-free pelvic extremity of the sartorius; (7) when the γ strength-length curves from the sartorius show more than one excitable point, these always correspond to sharp bends in the nerves, and are closely correlated with nerve distribution despite the great variation from preparation to preparation; (8) when the nerve is carefully removed by dissection from the surface of the sartorius, the γ curve, initially very prominent, disappears entirely from the cleared region; (9) curare abolishes the γ excitability completely by the time that indirect excitation (through the nerve) has failed.—*M. A. Rubin* (Clark).

1752. **Rushton, W. A. H. Identification of Lucas's α excitability.** *J. Physiol.*, 1932, **75**, 445–470.—The author has sought to distinguish between muscle and nerve excitable substances by measuring rheobase and chronaxy with large fluid electrodes, which, he claims, have great advantages over any other type of electrode used for this purpose. For the most part undrugged muscles were used to identify α and γ curves with muscle and nerve more conclusively than hitherto. Four main points are developed and summarized in this and previous papers by the author: (1) the presence of two excitabilities α and γ; (2) α is not due to an abnormal condition of the muscle; (3) the γ excitability obtained with fluid electrodes is due to intramuscular nerves; (4) the α excitability is due to the muscle fibers themselves and arises at the cathode due to the closing (not opening) of a current. The α contraction is not a local Tiegel's contracture, but is propagated. A hypothesis is put forward to explain qualitatively the dependence of muscle excitation time upon the nature of the electrodes and the relative independence of nerve.—*M. A. Rubin* (Clark).

1753. **Sepp, I. K. [Historical essays on the evolution of the nervous system.]** *Sovietskaya nevropatol., psikhiat., i psikhonevrol.*, 1932, **1**, 143–151.—The course of evolution in the animal world is described down to the present organization. In order to understand and influence the nervous system as it is at present, one must study the history of the structure of the organism without isolating structure from function. The nervous system is the functional system in a multicellular organism which determines its connections with external environment. The form of movements of the organism is one of the principal factors in the formation of the nervous system which rules these movements. For example, the author shows the evolution of the motor apparatus to be connected with the evolution of the nervous system. The present nervous system includes old forms and structures in altered form.—*A. Yarmolenko* (Leningrad).

[See also abstracts 1681, 1682, 1685, 1719, 1772, 1773, 1791, 1810, 1822, 1823.]

MOTOR PHENOMENA AND ACTION

1754. **Almásy, G. Instinkt und Intellekt als Anpassungen und als Wachstumsbahnen.** (Instinct and intelligence as adaptation and as modes of growth.) *Cong. Internat. X^e Zool. Budapest*, 1927, Pt. 1.—*W. S. Hunter* (Clark).

1755. **Bazett, H. C., & Laplace, L. B. Studies on the indirect measurement of blood pressure. II. A three-bag system for measurement of blood pressure in man.** *Amer. J. Physiol.*, 1933, **103**, 321–337.—A method of obtaining oscillographic records and of estimating blood pressure from them is described. By the use of three air bags of different size, one within the other, a system of high natural frequency may be obtained, and the records obtained with little distortion during continuous slow inflation or deflation. The method appears to indicate both end and lateral pressures for systole and diastole, as well as the pressure of the dicrotic wave. Figures are given which demonstrate that respiratory variations in blood pressure, both in systole and diastole, can be readily demonstrated and approximately measured by this method.—*C. Landis* (N. Y. Psychiatric Institute).

1756. **Bischler, W. La volonté et l'intuition dans l'initiative.** (Will and intuition in initiative.) *Psychol. et vie*, 1932, **6**, 268–271.—*Math. H. Piéron* (Sorbonne).

1757. **Briscoe, G. Adequate electrical stimuli for posture and movement.** *J. Physiol.*, 1931, **71**, 292–308.—An attempt to reproduce the characteristics of the two main functional muscle activities, holding of posture and movement, by supplying the peripheral motor nerves with suitable electrical stimuli. It was shown that when there is an adequate blood supply to the muscle and the depth of anaesthesia is such that the corneal reflex is still present, the deciding factor in maintaining postural contraction is the rate of stimulation. Low rates of stimulation (20–25 per second) will maintain posture for hours. Rates above and below this range are suitable for rhythmic phasic contractions and decline in posture. A close parallelism was observed between the conditions found in decerebrate rigidity and those necessary for exhibiting artificial posture. The author concludes therefore that the electrical stimuli employed in the latter case may be termed adequate.—*L. Berkovich* (Clark).

1758. **Brown, W. Auditory and visual cues in maze learning.** *Univ. Calif. Publ. Psychol.*, 1932, **5**, 115–122.—This paper describes a situation of maze learning with human subjects, in which the effect of auditory and visual cues is studied. The maze consisted of units of shallow trough, provided with side walls of a few inches high on each edge and disposed in squares on the floor. The pattern is established by means of wooden gates inserted in the units which are to be excluded from the true path. The subject

finds his way by following the inner walls of the maze with his feet. Three groups of 20 subjects were used. The subjects of Group I (control group) were blindfolded. Those of Group II ("sound-cue group") worked under the same conditions, but a metronome was kept continuously beating at a definite place in the room during the performances. The subjects of Group III ("visual-cue group") were not blindfolded, but were provided with a large box surrounding the head in such a way that they could not see the floor of the maze, but could perceive, if they looked up, part of the ceiling and the upper part of the walls. For each group, when the subjects had reached the criterion of learning (two perfect runs), they were required to relearn the maze after rotation of 180°. In addition, the subjects of Group II had to continue work without the metronome, and those of Group III without their visual cues until they reached the criterion of one perfect run. The results expressed in terms of the average number of trials per group are the following: 30.6 for Group I, 23.45 for Group II, and 13.8 for Group III. On the other hand, the average number of trials for relearning after rotation are respectively 2.85, 2.5, and 5.8. From this it is concluded that the two kinds of cues are of assistance in learning, but that the visual ones are the most effective.—*G. de Montpellier* (Clark).

1759. **Brown, W. Spatial integrations in a human maze.** *Univ. Calif. Publ. Psychol.*, 1932, **5**, 123–134.—The behavior of men in the maze situation suggests some considerations bearing on the nature of the maze performance. First, a "personal or kinesthetic-motor space" is developed during the learning. The subjects do not learn a pattern or "configuration," but a succession of bodily movements. Second, if objects can be perceived in the surrounding field, they may serve as "landmarks" which may greatly facilitate the learning. Third, the location of the subject's position within the room, i.e., with reference to the walls, may be valuable, but is not necessary for correct performances. The author summarizes these considerations as follows: "Learning a maze-path consists essentially in connecting together numerous elements of sense-impression and of behavior into a more or less successful pattern of action. This pattern of action may consist almost entirely of a series of consecutive movements, or these movements may rest upon separate points of orientation."—*G. de Montpellier* (Clark).

1760. **Buys, E., & Rijlant, P. Méthode d'exploration de l'oreille interne non acoustique.** (Method of exploration of the non-acoustic inner ear.) *C. r. Soc. biol.*, 1932, **110**, 986–988.—Description of a hydraulic apparatus capable of drawing the subject at uniformly accelerated speeds, the starting and stopping of the apparatus being accomplished without jerks. Experiments have shown that rotation with an acceleration of less than .8° per second determines no reaction, whatever the speed of rotation obtained, but that the sudden cessation of movement elicits the nystagmic reaction.—*Math. H. Piéron* (Sorbonne).

1761. **Buytendijk, F. J. J. Reaktionszeit und Schlagfertigkeit.** (Reaction time and readiness for an event.) Kassel: Rudolph & Meister, 1931. Pp. 30. RM. 2.—A perusal of the preceding literature shows the surprising results that neither skill nor aptitude or readiness for a sudden event has any direct relation to the reaction time of the individual. A sportsman of the highest caliber waits for the ball with a certain intellectual vacuum, which creates the best condition for his reception of the ball. In addition there are other important factors which might be demonstrated by a separate experiment. The performances of practiced and unpracticed fighters are not essentially different. Indeed, the latter behaved with regularity and preciseness. In sport more is demanded from the contestant than in lunging after a falling ball. He reacts to a most complex situation pattern, which is made up of the behavior of his opponent as well as his own. The situation patterns, in turn, belong to their own characteristic group, which are called *Formunterschiede*. It is to these that the contestant reacts. From the individual factors involved he recognizes their membership in the situation group, which may, in turn, belong to a larger group. Therefore, we may speak of sensory-motor idea formation (*senso-motorischer Begriffsbildung*). If we investigate these, we will observe that there are three kinds: (1) Each perception contains a dynamic factor, e.g., pleasant pictures stimulate laughter, music incites dancing. The movement is not given immediately with the perception but will be imaginally represented. Palágyi was the first to recognize the importance of these sensory or virtual movements. Later Klages specifically referred to them, and Stein has used this idea in the explanation of pathological conditions. (2) Man and beast experience the environment in dynamic relation to their bodies. In this there is intelligence (insight) which, in reality, exists in every form of behavior. (3) Perception and act do not react toward one another as do cause and effect, but constitute a unity. For this unity, Von Weizsäcker has coined the idea of functional circle (*Funktionskreises*). Both in the sport of men and in the combat of beasts we find examples of this functional circle. The unity between play and combat is understood; the readiness for combat will be dependent upon the sensory-motor understanding. The combat between the mongoose and the cobra may be cited as an example. The complete analysis of the problem shows clearly that one animal adjusts itself to the whole complement of movements of the other, not only to separate partial perceptions. —*W. Fischel.*

1762. **Dale, A. S. The staircase phenomenon in ventricular muscle.** *J. Physiol.*, 1932, **75**, 1–16.—A further study of the staircase phenomenon is made by the author, using perfused strips of ventricular muscle from the rabbit heart. Such preparations exhibit the phenomenon when artificially stimulated. The rhythm can be regulated. It was found that the staircase effect in the perfused ventricular strip of the rabbit heart is unaffected by changes in concentration of hydrogen, calcium, or potassium ions

in the perfused fluid. Using a similar preparation from the frog it was found that the staircase effect is unaffected by changes in the hydrogen-ion concentration of the surrounding fluid and is not abolished by atropine. The probable causes of the staircase phenomenon are discussed. The accumulation of some substance liberated during contraction is favored as an explanation.—*L. Berkovich* (Clark).

1763. **Des Vignes Rouges, J. La "mise en train" de l'esprit en vue de l'acte d'initiative.** (The preparation of the mind in view of the act of initiative.) *Psychol. et vie*, 1932, **6**, 257–259.—An enumeration of the processes which facilitate the birth of an idea, the basis of every act of initiative. First take a mental attitude consisting in a state of tension, of intellectual tonicity. Then inhibit all parasitical ideas, establish concrete hypotheses, and by feeling the way, the necessary act of initiative is often found.—*Math. H. Piéron* (Sorbonne).

1764. **Downey, J. E. Some curious problems suggested by case studies of handedness.** *J. Abn. & Soc. Psychol.*, 1932, **27**, 152–158.—The author believes the application of statistical methods to the study of unilateral dominance bids fair to clear up many obscurities. It should not, however, wholly supersede the clinical procedure. From a number of individual case studies, there were studied: (1) experiences of subjects who have been shifted from the preferred hand, from left to right or right to left—one case of such change shows relapse to the preferred activity in learning novel activities and creative drawing; (2) observations on a change in the use of the hands motivated by a curious experience in visualization, and an inhibition of visualization due to conflict; (3) orientation illusions, arising from definitely right or left motor sets; (4) experiences which suggest that in some cases handedness shifts with changes in organic tension.—*C. H. Johnson* (Boston Psychopathic Hospital).

1765. **Drabovitch, W. Le pire ennemi: la passivité.** (The worst enemy: passivity.) *Psychol. et vie*, 1932, **6**, 259–260.—*Math. H. Piéron* (Sorbonne).

1766. **Eagle, E. Conditioned inhibition of water diuresis.** *Amer. J. Physiol.*, 1933, **103**, 362–366.—In the course of experiments attempting to produce a conditioned water diuresis reflex, there developed a conditioned inhibition of the unconditioned response. This was characterized by an increase in the latent period of response to water ingestion, a decrease in the magnitude of the response, and finally a total lack of diuresis to water ingestion. A change of the environment of the animal and of the experimental procedure caused the diuresis to reappear.—*C. Landis* (N. Y. Psychiatric Institute).

1767. **Ehrhardt, A. Das Ranschburgsche Phänomen bei Reaktionsbewegungen.** (The Ranschburg phenomenon in reaction movements.) *Neue Psychol. Stud.*, 1931, **5**, No. 3.—*W. S. Hunter* (Clark).

1768. **Eick, —. Über die Bewegungen und die Muskelarbeit an den Sprunggelenken des Menschen.** (On the movements and the muscular work of the human ankle.) *Sitzber. Preuss. Akad. Wiss.*, 1931, **22**, No. 23.—*W. S. Hunter* (Clark).

1769. **Fulton, J. F., & Sherrington, C. S. State of the flexor reflex in paraplegic dog and monkey respectively.** *J. Physiol.*, 1932, **75**, 17–22.—Quantitative data were recorded on the state of the flexor reflex in paraplegic dog and monkey 3-4 hours and 21 days after spinal transection. In the monkey, *Macacus rhesus*, after spinal transection in the thoracic region, the flexor reflex of the hind limb is for a time either unobtainable or obtainable only as a trace. In the dog it is facile and vigorous. In a few weeks there is an increase of the reflex in both dog and monkey. In the monkey it can now be distinctly elicited. Also in the monkey, as contrasted with the dog, a peripheral condition of wasting and deterioration of the nerve response sets in, tending to obscure observations.—*L. Berkovich* (Clark).

1770. **Harvey, O. L., & Crockett, H. E. Individual differences in temperature changes of women during the course of the menstrual cycle.** *Human Biol.*, 1932, **4**, 453–468.—One series of axillary temperatures taken daily for thirteen periods is analyzed by Fourier methods and the constants from that series are compared with four shorter series of temperatures from other women. The body temperature falls just preceding, during, and until slightly after the flow, when it increases to a maximum about the twenty-third day.—*O. W. Richards* (Yale).

1771. **Hathaway, S. Some characteristics of the electromyograms of quick voluntary muscle contractions.** *Proc. Soc. Exper. Biol. & Med.*, 1932, **30**, 280–281.—Using extension of the forearm in a simple reaction-time set-up, electromyograms of the muscle action potentials were obtained from oscillographic records. The first large action potential occurred 58 sigma before movement of the forearm. An early volley of small discharges appeared from 110 to 160 sigma before the arm movement. These pre-response discharges in the reacting muscle were accompanied by corresponding ones in its antagonist, in the triceps and biceps brachii of the contralateral arm, and in the homolateral gastrocnemius, although no movement occurred in these muscles. The times of appearance of the pre-response discharges correspond roughly to the time for simple reflexes, pointing to a possible origination in the lower levels neurologically, and to another relationship of the voluntary and involuntary reaction.—*P. Seckler* (Clark).

1772. **Hodgson, P., & Olmsted, J. M. D. Dilation of the spleen. Stimulation of nerves; effect of autonomic drugs.** *Proc. Soc. Exper. Biol. & Med.*, 1933, **30**, 478–480.—Using decapitate cats and amytalized dogs and cats, it was found that a tetanizing current of weak intensity applied to the splanchnics on either side, or to the branches of the splenic nerve craniad or caudad to the splenic artery, would cause an increase of about 12% in splenic volume. A study of the responses of the spleen to the intravenous injection of the so-called autonomic drugs and the responses to stimulation after such injection was carried out in order to throw light on the nature of the

innervation of the dilator mechanism. Evidence for and against both sympathetic or parasympathetic control is offered. The authors believe, from their experimental results, that the course of the dilator fibers is through the ventral spinal roots rather than the dorsal roots as Kuré and his associates concluded.—*P. Seckler* (Clark).

1773. **Kreezer, G. Changements dans l'excitabilité réflexe sous l'influence de diverses substances appliquées sur le thalamus.** (Changes in reflex excitability under the influence of various substances applied to the thalamus.) *C. r. Soc. biol.*, 1932, **111**, 694–695.—The author, attempting to study the influence of the thalamus upon medullary reflex activity, tried to discover the effect of substances applied directly to the thalamus upon the crossed reflex of the frog. He studied: (1) the effect of a saturated solution of NaCl, one crystal of which provoked a marked increase in the latent period of the reflex, and (2) the effect of a concentrated solution of alcohol which gives the same effect, but which is less lasting.—*Math. H. Piéron* (Sorbonne).

1774. **Landis, C. Electrical phenomena of the skin.** *Psychol. Bull.*, 1932, **29**, 693–752.—264 titles are reviewed rather fully and critically under these heads: historical; methodology — circuits, galvanometers, electrodes; physical nature of the phenomena; physical factors influencing these phenomena; underlying anatomical factors; physiological nature of the response—general condition of the body, physiological processes changing the responses; psychological significance; applications—clinical, individual differences, association, conditioning, comparison with other psychological measurements; miscellaneous—hypnosis, the response in children, in animals. "The reviewer is convinced that there is really no adequate evidence that these electrical phenomena of the skin are of necessity associated with any psychological event."—*J. F. Dashiell* (North Carolina).

1775. **La Ravoire, J. Avantages et dangers de l'initiative.** (Advantages and dangers of initiative.) *Psychol. et vie*, 1932, **6**, 262–263.—*Math. H. Piéron* (Sorbonne).

1776. **Lindworsky, J. Willensschule.** (Education of the will.) Paderborn: Schöningh, 1932. Pp. 138. M. 2.70.—*R. R. Willoughby* (Clark).

1777. **Mandeville, S. Les adjuvants de l'initiative.** (The aids of initiative.) *Psychol. et vie*, 1932, **6**, 263–265.—*Math. H. Piéron* (Sorbonne).

1778. **Martin, H. E. Physiological leucocytosis: the variation in the leucocyte count during rest and exercise, and after hypodermic injection of adrenalin.** *J. Physiol.*, 1932, **75**, 113–128.—Investigation of diurnal variation in leucocyte count showed that during rest the counts are steadiest and at a minimum when the subject's condition approximates most nearly that of absolute physiological quiescence, and that with increase in mental and physiological activity, during rest, there is a rise in the count. The effect of exercise was to increase the leucocyte count from 15 to 48% above the resting value in peripheral blood. A hypodermic injection of adrenalin causes a leucocytosis in which the increase in lymphocytes is most marked. Evidence is advanced which points to the lymph glands and bone marrow as the source of the cells which cause leucocytosis.—*L. Berkovich* (Clark).

1779. **Matthes, K., & Ruch, T. C. Extensor reflexes of the chronic spinal cat.** *Quart. J. Exper. Physiol.*, 1932, **22**, 221–231.—The fraction of the maximum tension capacity of m. soleus which can be enlisted in reflex contraction from a large contralateral nerve is 75%–85% in chronic spinal animals.—*L. Carmichael* (Brown).

1780. **Miles, W. R. Change of dextrality with age.** *Proc. Soc. Exper. Biol. & Med.*, 1931, **29**, No. 2.—*W. S. Hunter* (Clark).

1781. **Moldaver, J. Etude de la courbe de sommation centrale du réflexe palmo-mentonnier de l'homme.** (Study of the central summation curve of the palm-chin reflex in man.) *C. r. Soc. biol.*, 1932, **109**, 1143–1146.—This cutaneous reflex consists of a contraction of the muscles of the chin in response to a rubbing or an electric excitation of the palmar region of the same side. In these experiments the intensity of the two induction shocks was adjusted so that either shock by itself produced no reflex response. Superposition of the two shocks provokes a short contraction, and if, beginning at this point, the interval of time which separates the two excitations is increased, a rapid and marked increase in the size of the response is found, often surpassing the reflexes obtained by the superposition of the two shocks. The curve obtained resembles the curves obtained by Bremer in the spinal frog.—*Math. H. Piéron* (Sorbonne).

1782. **Mowrer, O. H. Concerning the normal function of the vestibular apparatus.** *Ann. Otol., Rhinol. & Laryngol.*, 1932, **41**, 412–422.—Photographs are presented demonstrating eye reflexes occurring under natural conditions of stimulation; interpretations as to their biological significance are made.—*C. H. Graham* (Clark).

1783. **Newhall, S. M., & Sears, R. R. Conditioning finger retraction to visual stimuli near the absolute threshold.** *Comp. Psychol. Monog.*, 1933, **9**. Pp. 25.—The authors were interested in determining how weak a visual stimulus may be and still form the basis of a conditioned reaction, whether stimuli below the conscious threshold may be conditioned, and whether results derived by means of the subject's report are comparable with results obtained by conditioning. The unconditioned reaction was retraction of the finger from a momentarily electrified grid. The conditioned stimulus was illumination of the eye through an artificial pupil. The results show that a weak visual stimulus can be conditioned and that the number of conditioned responses decreases as the intensity of the stimulus decreases. Visual stimuli below the statistical psychophysical threshold were conditioned, but the authors warn against attaching too much significance to this finding, since about half of the stimuli within the critical range would naturally fall

below the statistical threshold. There was only a small difference between the thresholds determined by verbal report methods and the thresholds determined by the conditioned response method. The authors point out the limited nature of the data and the need for further work before drawing final conclusions.—*N. L. Munn* (Pittsburgh).

1784. **Peak, H. An evaluation of the concepts of reflex and voluntary action.** *Psychol. Rev.*, 1933, **40**, 71–89.—Of the possible ways in which the categories of reflex and voluntary behavior may be distinguished, i.e., in terms of (1) their descriptive characteristics, (2) their correlates and determinants, or (3) their functional relations to their determinants, the author finds that only the third way yields any valid difference. Examination of the relation of responses to their antecedents suggests that these functions fall into separable groups. For example, two distinct functions are obtained when response latencies are plotted against stimulus intensity, or against instruction. Into one group fall those responses commonly called reflex, into the other those called voluntary. But the reflex-voluntary dichotomy may not be permanently defensible on these grounds.—*A. G. Bills* (Chicago).

1785. **Piéron, H. Reflejo condicional y percepcion. La noción del sincretismo.** (The conditioned reflex and perception. The idea of syncretism.) *Arch. de neurobiol.*, 1930, **10**, No. 3.—*W. S. Hunter* (Clark).

1786. **Reed, L. J., & Love, A. G. Biometric studies on U. S. Army officers—somatological norms, correlations and changes with age.** *Human Biol.*, 1932, **4**, 509–524.—Measurements of stature, weight, chest measure, pulse, and systolic and diastolic blood pressure on 5,021 army officers were studied in age groups of five and ten years to determine their trends. Weight and chest measure increase progressively at a declining rate until about age 55; thereafter there is little change. The variation of individuals increases with age. The increase in blood pressure becomes apparent in the fifties. Correlations of these measurements with each other are given.—*O. W. Richards* (Yale).

1787. **Ritchie, A. D. Theories of muscular contraction.** *Nature*, 1932, **129**, 165.—The theory suggested is that in resting muscle the contractile mechanism is at a steady high potential, maintained by the resting metabolism. On excitation, the potential falls to zero and the muscle tends to a shorter length. It then relaxes because the contractile mechanism is recharged to its original potential by what is essentially a speeding-up of chemical changes occurring the whole time. This "charged at rest" theory is supposed to fit the facts better than the alternative "discharged at rest" theory.—*E. H. Kemp* (Clark).

1788. **Ruckmick, C. A. Discussion: terminology in re "psychogalvanic reflex."** *Psychol. Rev.*, 1933, **40**, 97–98.—Referring to previous criticisms of the term by Landis and by Lauer, the author objects to Landis' alternative term "galvanic skin response" and substitutes the term "electrical dermal response."—*A. G. Bills* (Chicago).

1789. **Schubert, H. J. P. Energy measurements on the curve of work. An analysis of the organic response in terms of oxygen metabolism, heart rate, and breathing rate.** *Arch. of Psychol.*, 1932, No. 139. Pp. 62.—The problem was to determine the oxygen metabolism, heart rate, and breathing rate during and after the performance of work, the work being done under a given load and at a given rate, but the length of time spent at work being systematically varied. Given a constant power delivery, does the unit cost of performing the work increase, and is there any change in the course of the recovery from work as the length of time spent at work is increased from 2 to 6, 10, 14, 18 minutes? The cost-ratio of kilogram-meters output to cubic centimeters of oxygen used is constant throughout a 22-minute period of work at 140 kgm. per minute. The greatest part of the oxygen debt is incurred in transition from rest to work conditions. The functioning level of the visceral processes related to immediate energy transformations is steadily raised the longer the period the organism spends at work. The heart rate increases slightly but steadily after the initial period of adjustment, as longer time is spent at work. The breathing rate also rises steadily during work. The rate of discharging oxygen debt decreases as the length of the previous work period is increased.—*E. M. Achilles* (Columbia).

1790. **Serebrennikov, P. T. [A study in the motor development of the Red soldier's shooting.]** *Voenno Med. J.* (Leningrad), 1932, **1**, 11–114.—A positive correlation was found between motor development and the rank order in shooting as estimated by the commanders.—*A. Yarmolenko* (Leningrad).

1791. **Sharpey-Shafer, E. Normal respiration and the influence of the vagi.** *J. Physiol.*, 1932, **75**, 130–135.—A discussion of the mechanisms regulating respiration, with references to classical and recent experimental work on the subject. Normal respiration, consisting of inspiration and expiration, with no pause between, may continue at a normal rhythm although the vagi are severed, afferent impulses from the respiratory muscles, which have a concomitant rôle in normal respiration, being sufficient to take over and maintain the rhythm. These muscles are reciprocally innervated, contraction reflexly producing inhibition in their antagonists, thus supplying muscular activity as the basis of expiration as well as inspiration. The author doubts that the respiratory center has a rhythm of its own independent of all reflexes. Experiments indicating this, he believes, have not taken account of the afferent impulses from the respiratory muscles, or, in the case of Adrian and Buytendijk, have used a form in which conditions are different from the more complex ones found in mammals.—*L. Berkovich* (Clark).

1792. **Shohrin, V. A. [Fluctuations of blood pressure during muscular work.]** [*Papers Instit. Prof. Diseases (Leningrad)*], 1931, **5**, 46–65.—At first

muscular work leads to an increase of pulse and blood pressure, but at the end blood pressure decreases often below the norm. Under work conditions the blood pressure of women is higher than that of men.—*A. Yarmolenko* (Leningrad).

1793. **Thorndike, E. L. A proof of the law of effect.** *Science*, 1933, **77**, 173–175.—Continuing his work on the law of effect, Thorndike states, "It is the purpose of this report to present entirely independent experimental proof of the strengthening influence of a satisfying state of affairs upon the connections of which it is the after-effect and important new facts concerning the method of action of that influence." A word-number series is arranged, each response receiving either reward or punishment. Attention is called to the fact that the punished connections behave differently, those nearest a reward being strengthened most, when the amount of strengthening is measured by the percentage of repetitions in the following trial. The strengthening influence of the reward was found to spread to any connections which are near enough to it. The author believes that these results explain selective modifiability, and many of the problems for which frequency, recency, and intensity are inadequate. The possibility of a physiological explanation of the law of effect is hinted at.—*P. Seckler* (Clark).

1794. **Thorndike, E. L. The influence of irrelevant rewards.** *J. Educ. Psychol.*, 1933, **24**, 1–15.—Subjects were asked to choose cards by number and were given thereupon certain effects or rewards. "The influence of the *relevant* reward of finding the wanted idea or word upon the tendency to choose that card again in general rather than to choose some other card is small." A satisfying after-effect, however, "strengthens somewhat the connection to which it is attached, even though it is irrelevant to the purpose in the interest of which the connection was made and highly incongruous with the cravings and expectations of the person at the time."—*J. A. McGeoch* (Missouri).

1795. **Ufland, T. M. [On the question of the investigation of muscular chronaxy in man.]** [*Papers Instit. Prof. Diseases (Leningrad)*], 1931, **5**, 7–32.—Using a special chronaximeter the author investigated the chronaxy of m. biceps and m. extensor digit. communis of more than 800 men. The muscular chronaxy is not an absolutely constant value, but its fluctuations are small. Chronaxy is higher in women than in men, and is more clearly shown in the right hand.—*A. Yarmolenko* (Leningrad).

1796. **Van Gennep, A. Comment prendre de l'initiative?** (How should initiative be taken?) *Psychol. et vie*, 1932, **6**, 266–267.—*Math. H. Piéron* (Sorbonne).

1797. **Varé, P. Influence de l'alcool sur les réactions psycho-motrices.** (Influence of alcohol upon psycho-motor reactions.) *C. r. Soc. biol.*, 1932, **111**, 70–72.—The ingestion of alcohol, even in a weak dose, acts upon the psycho-motor reactions and particularly upon the choice reactions, lengthening time and increasing errors. Alcohol also diminishes voluntary attention.—*Math. H. Piéron* (Sorbonne).

1798. **Verax, G. L'initiative et son contraire.** (Initiative and its opposite.) *Psychol. et vie*, 1932, **6**, 273–274.—*Math. H. Piéron* (Sorbonne).

1799. **Wilson, F. N., Macleod, A. G., & Barker, P. S. The distribution of the action currents produced by heart muscle and other excitable tissues immersed in extensive conducting media.** *J. Gen. Physiol.*, 1933, **16**, 423–456.—The action currents of heart muscle are distributed in accordance with the laws that govern the flow of electric currents in volume conductors. Curves obtained by means of the technique described indicate that the electrical effects produced by the passage of an excitation wave along a single muscle fiber are similar to those which would occur if the crest of this wave were immediately preceded by a source and followed by a sink. This conclusion is in accord with the membrane theory of Bernstein.—*C. H. Graham* (Clark).

1800. **Wilson, H. E. C. The influence of muscular work on protein metabolism.** *J. Physiol.*, 1932, **75**, 67–80.—The total nitrogen and sulphur output in the urine of the subject were followed in an attempt to solve the rôle of protein in muscular work. The experiments were carried out with diets which differed in the form of protein they contained. The work done varied between 22,000 and 34,000 kg. m. for one hour daily. Muscular work caused an increase followed by a decrease in excretion of nitrogen and sulphur in the urine. The increase in nitrogen and sulphur is shown to have no relation to the amount of work done, the quality of protein ingested being one of the factors which influences the amount and the S : N ratio excreted above the basal value. The rôle of muscle work has been interpreted as causing an increase in the katabolism of protein which is later followed by a compensatory anabolic phase.—*L. Berkovich* (Clark).

1801. **Witty, P. A., & Lehman, H. C. The instinct hypothesis versus the maturation hypothesis.** *Psychol. Rev.*, 1933, **40**, 33–59.—The historic distinction between "instinctive" and "learned" behavior has been replaced by one between the respective contributions of maturation and practice effect. Some of the recent methods of determining the relative importance of these two factors are reviewed and criticized under the following heads: (1) use of intelligence tests for (a) studies of constancy of the IQ, (b) correlation studies on near and far relatives, (c) studies of foster children, and (d) studies of race differences; (2) studies of performance without previous practice in animals, as Carmichael's; (3) comparison of performance of humans after equal amounts of practice; (4) studies of infants, as Watson's, Sherman's, and Gesell's; (5) studies using the sequential method, as Shirley's; (6) studies of identical twins reared together and apart, as those of Gesell and Newman. The authors conclude on the basis of the evidence that most forms of behavior depend on mixed hereditary-environmental factors, and like personality traits give a normal unimodal distribution curve, rather than a bimodal one. Hence attempts to establish

points of division along the base line are purely arbitrary.—*A. G. Bills* (Chicago).

1802. **Yugelevsky, A. S. [A method for the study of hand movements.]** *Sovietskaya psikhonevrol.*, 1932, 79–80.—An apparatus was constructed for recording the movements of both arms. The kymographic record shows very small movements of the hand and the exact character of motor disorders; and it affords a basis for determining the region of lesions. The method was applied in clinical practice, but it can be used in normal work.—*A. Yarmolenko* (Leningrad).

[See also abstracts 1668, 1670, 1701, 1721, 1736, 1749, 1751, 1752, 1809, 1815, 1819, 1843, 1844, 1845, 1862, 1863, 1864, 1881, 1913, 1941, 2007, 2037, 2051, 2074, 2077, 2101.]

PLANT AND ANIMAL BEHAVIOR

1803. **Allee, W. C. Studies in animal aggregations: further analysis of the protective value of biologically conditioned fresh water for the marine Turbellarian *Procerodos*.** *Physiol. Zool.*, 1933, **6**, 1–21.—Conditioned fresh water allows survival of this flat worm longer than in unconditioned water. Sugar solutions confer protection in concentrations of M/1 to M/33. Absorption on charcoal or albumen does not remove the protective substance in the water solution, and gum arabic, mucin, albumen, and ethyl urethane do not give protection. Previous work is confirmed but no explanation is yet available.—*O. W. Richards* (Yale).

1804. **[Anon.] "Bullying" amongst birds.** *Nature*, 1932, **129**, 395.—Cases of interference in the quarrels of alien species are reported.—*E. H. Kemp* (Clark).

1805. **Bachrach, —, & Morin, G. Effet du son sur l'excitabilité génitale du chat.** (Effect of sound upon the genital excitability of the cat.) *Bull. Soc. de sexol.*, 1932, **1**, 53–57.—It appears from the experiments of the authors that certain sharp sounds, in particular *mi* of the fourth octave, constitute a powerful genital excitant for the cat. This same sound serves to fix a conditioned reflex of defecation in the pre-pubertal period, but it loses its value as a conditioned excitant after puberty; it then becomes an absolute excitant with relation to sexual activity.—*Math. H. Piéron* (Sorbonne).

1806. **Bailey, V. Ways of the beaver people.** *Scient. Mo.*, 1933, **36**, 165–168.—An informal account of the life activities of beavers in general and of a few in particular.—*J. F. Dashiell* (North Carolina).

1807. **Baudin, L. Pertes de la sensibilité à la dépression chez les poissons anesthésiés a la tricaïne.** (Loss of sensitivity to pressure in fish anesthetized with tricaine.) *C. r. Soc. biol.*, 1932, **110**, 151–153.—Fish react to a sudden pressure of several cubic centimeters of Hg by movements of different amplitudes. If the animal has been anesthetized with tricaine these reactions no longer occur. The fish are no longer sensitive to pressure. The experiments were done on *Carassius auratus*.—*Math. H. Piéron* (Sorbonne).

1808. **Cappe de Baillon, P. La sensibilité thermique des Phasmides.** (The thermal sensitivity of phasmids.) *C. r. Acad. sci.*, 1932, **195**, 557–559.—In adult phasmids there is, near the base of the twelfth articulation of the antenna, on the top side, a mammiform organ, without the denticles and hair which cover the rest of the antenna. Section shows a mass of sensory cells and a differentiated cuticle. There is no increase of mechanical sensitivity or chemical excitability at this level, but this twelfth articulation is very sensitive to heat, as can be shown by moving a piece of heated copper within a few millimeters of the top side of the antenna. The sudden reaction of the whole body is made only when this passes before the twelfth articulation. If the part of the antenna below this point is sectioned, there is no reaction. Everything agrees with the hypothesis that this apparatus is an organ of thermal sensitivity. The organ is lacking in families with short antennae.—*Math. H. Piéron* (Sorbonne).

1809. **Chattock, A. P., & Grindley, G. C. The effect of change of reward on learning in chickens.** *Brit. J. Psychol.*, 1931, **22**, 62–66.—" . . . a change of reward which was sufficient to produce marked signs of surprise produced no significant effect on the gradual rise of the learning curves." One curve "which applies to chicks who at first disliked the new reward, shows some evidence of an effect of this kind."—*W. S. Hunter* (Clark).

1810. **Chu, H. N. [The fiber connections of the diencephalon of the opossum *Didelphis virginiana*.]** *Monog. Nat. Res. Instit. Psychol.*, 1932, Serial No. 3. Pp. 34 + xi.—This paper is Part II of the author's study on the diencephalon of the opossum. The fiber connections of the five main parts of the diencephalon are systematically described as follows: the epithalamus receives fibers from various olfactory centers through the striae medullaris, including the medial and lateral cortico-habenular, the anterior, medial and periventricular olfacto-habenular, the thalamo-habenular, and the septo-habenular tracts; the striae terminalis 4 and 5 also contribute to it. The efferent fibers from the epithalamus form three tracts, viz., tractus habenulo-tectalis, tractus habenulo-thalamicus, and tractus habenulo-peduncularis. The habenular commissure serves as a bridge for the passage of the striae medullaris fibers from one side to the other. The dorsal thalamus receives fibers from the medial and trigeminal lemniscus systems, and sends fibers to the cortex through the thalamic radiations. Different cell masses of the dorsal thalamus are linked by internuclear fibers. The metathalamus is a relay center for auditory and visual fibers. The subthalamus is also a relay station for the pyramidal tracts, running through the cerebral peduncle, and the extrapyramidal tracts, coming from the corpus striatum. Last, the hypothalamus, especially the mammillary body, has afferent olfactory connections called olfacto-hypothalamic and olfacto-mammillary tracts and columna fornicis, and efferent connections called mammillo-thalamic and mammillo-tegmental tracts. The periventricular fibers of the hypothala-

mus are probably related to the sympathetic system by connections with the tegmental region and the reticular formation of the oblongata. 23 plates and a bibliography of 46 titles.—*C.-F. Wu* (Nat. Res. Instit. Psychol., Peiping, China).

1811. **Dennis, W., & Porter, J. M., Jr. Isolated action of compound stimuli in a locomotor habit of rats.** *J. Genet. Psychol.*, 1932, **41**, 127–135.—The authors sought to determine whether maze behavior may not normally be controlled by several receptors, any one of which may be effective in the absence of the others. A circular discrimination apparatus so modified as to present a large negative area was equipped with a movable iron strip or trail, a square of white cardboard, and a buzzer; and the positions of these possible cues as well as that of the food box were systematically varied. It was found that the highest percentage of correct runs was made when the stimuli were used together, next highest with the square alone, a fair percentage with the trail alone, and no evidence of directive effect at all from the buzzer alone. This demonstration of the isolable action of compound stimuli is taken to challenge Watson's kinesthetic theory and Lashley's neural-mechanism theory of the maze habit.—*J. F. Dashiell* (North Carolina).

1812. **Fields, P. E. Studies in concept formation. I. The development of the concept of triangularity by the white rat.** *Comp. Psychol. Monog.*, 1932, **9**, 1–70.—Using Lashley's jumping technique, the author was able to demonstrate that the white rat is capable of developing a reaction to triangularity per se. The rats were first trained to discriminate a white equilateral triangle from a white circle of equal area. Control tests showed that the position of the triangle rather than its form served as the basis of differentiation. The discrimination did not depend upon the areas of the forms, since area could be varied within wide limits without disturbing the discrimination. The triangle in its original position (apex up) was discriminated with a high degree of accuracy when a white rectangle, a cross, and a square were substituted for the circle. The discrimination broke down, however, when the triangle itself was greatly changed in position. The rats were then given 1050 trials during which the triangle was presented in 24 different positions. The animals finally learned to discriminate the triangle from the circle regardless of the position of the former (degree of rotation). The animals learned to discriminate successive positions in fewer and fewer trials. Substitution of other forms for the circle did not disturb the discrimination. "When a white right-angled triangle was presented in eight different positions, the rats chose it at once (no previous training) with an accuracy of 96%, showing a positive transfer from the equilateral triangle and a possible abstraction of triangularity." Triangles composed of small circles, lines, etc., were discriminated with an accuracy of over 90% without training. It was shown that the discrimination was a positive reaction to the triangular forms and not a negative reaction to the circle. "This work with configurations has demonstrated that the rat can react to qualities inherent in a particular pattern, and that it can perceive 'identity in diversity.' The rat can react to the total organization (Gestalt) of a pattern without previous training to that particular pattern, but this behavior has been built up as the result of its earlier experiences with 'elements.'" Bibliography.—*N. L. Munn* (Pittsburgh).

1813. **Fischel, W. Tierseelenkunde in Bildern.** (Animal psychology in pictures.) *Naturforsch.*, 1932, **9**, 1–8.—The author expresses the belief that the behavior of animals cannot be adequately described in words, but can be much better portrayed in drawings. Illustrations by Walter Habicht showing animals in simple experimental situations are presented with short explanatory paragraphs by the author.—*E. H. Kemp* (Clark).

1814. **Fischel, W. Vergleichende Beurteilung tierpsychologischer Forschungsergebnisse.** (The comparative interpretation of the observational data of animal psychology.) *Zsch. f. Psychol.*, 1932, **127**, 181–226.—Data from various investigators bearing particularly upon the rôle of past experience and anticipation of the future in animal behavior are critically examined. Different levels of animal behavior are recognized, ranging from the reflex level, characterized by a simple and immediate relationship between stimulus and response, on which level past experience determines when activity sets in but not what is performed, to the level of insightful behavior, on which past experience and anticipation of the future are codeterminants not only of the response but also of the stimulus to which response is made. A bibliography of 95 titles is appended.—*R. B. MacLeod* (Cornell).

1815. **Gaunt, R. Adrenalectomy in the rat.** *Amer. J. Physiol.*, 1933, **103**, 494–510.—The survival of 185 bilaterally adrenalectomized rats from five colonies was studied and a marked survival difference noticed in the animals from one colony. Four of the colonies gave practically identical results—a 95% mortality within 20.5 days, with an average life-span of 7 days. Animals from the fifth colony showed 50% survival for 30 days or longer, with an average life-span of 14.4 days for those that died. The average life-span of animals under two months of age from the four high mortality colonies was 5.7 days, or 1.3 days less than the average for all of these animals classed together. Sex made no consistent difference in the life-span. Accessory cortical tissue either in macro- or microscopic amounts was generally found in those animals that lived over one month.—*C. Landis* (N. Y. Psychiatric Institute).

1816. **Girden, E. S. Cannibalism in dogs.** *J. Comp. Psychol.*, 1932, **14**, 409–413.—Two out of eleven dogs consistently refused to eat dog flesh. Eight dogs ate the raw flesh on more than half of the trials and five of these accepted it all of the time. All of the animals accepted the flesh after it had been cooked. The olfactory sense is thought to be involved. Mild hunger had no effect on the aversion. Intense hunger led in one animal to permanent dis-

appearance of the aversion.—*N. L. Munn* (Pittsburgh).

1817. **Harlow, H. F. Social facilitation of feeding in the albino rat.** *J. Genet. Psychol.*, 1932, **41**, 211–221.—In a series of seven different experiments the amounts of food ingested by rats when feeding alone and when feeding together were compared. Taken together, the experiments demonstrated social facilitation of feeding and also of general activity, as struggling and crowding; the facilitation appeared only with rats that were unrestrained and freely competing, and independently of previous experience or of imitation or envy.—*J. F. Dashiell* (North Carolina).

1818. **Hawker, L. E. Perception of gravity by the roots of *Vicia faba*.** *Nature*, 1932, **129**, 364–365.—Results of decapitation and re-heading in root tips show that the root tip has much stronger directional influence on response to gravity than the root stump. —*E. H. Kemp* (Clark).

1819. **Hellwald, H. Untersuchungen über Triebstärken bei Tieren.** (Investigations of the strength of drives in animals.) *Zsch. f. Psychol.*, 1931, **123**, Nos. 1–3.—*W. S. Hunter* (Clark).

1820. **Huxley, J. S. Field studies and physiology: a correlation in avian reproduction.** *Nature*, 1932, **129**, 166.—An explanation of the partly-sexed phase of the behavior of certain birds, which Eliot Howard had observed and reported, as due to physiological change known to occur and resulting in sufficient ovarian activity to induce interest in birds of the opposite sex. Three references are given.—*E. H. Kemp* (Clark).

1821. **Hyman, L. H. Studies on the correlation between metabolic gradients, electrical gradients, and galvanotaxis. II. Galvanotaxis of the brown hydra and some non-fissioning planarians.** *Physiol. Zool.*, 1932, **5**, 185–190.—If galvanotaxis depends on inherent electrical charges within the animal (the theory here advanced), *Hydra* should orient toward the cathode. The brown hydra, *Pelmatohydra oligactis*, does so orient but the green *Hydra* is anodic. The planarians should be cathodic, assuming a U- or W-shaped orientation, and the behavior of *Procotyla fluviatilis* and *Planaria dorotocephalia* confirms the theory. *Curtesia foremanii* was cathodic, but did not assume the U- or W-shaped form when placed in a galvanic current.—*O. W. Richards* (Yale).

1822. **Jasper, H. H. L'action asymétrique des centres sur la chronaxie des nerfs symétriques droit et gauche chez la grenouille.** (The asymmetric action of the centers upon the chronaxy of the right and left symmetrical nerves in the frog.) *C. r. Soc. biol.*, 1932, **111**, 376–378.—The chronaxy of the motor fibers of the sciatic nerve of the frog innervating the gastrocnemius muscle is weaker when this nerve is in connection with the centers (chronaxy of subordination) than when the same nerve is isolated. The author investigated whether the subordination appeared in the same way in the symmetrical nerves in relation to the medial plane of the animal. He found a generally stable asymmetry for the duration of the experiment, which, however, might change if the experiment was repeated 24 hours later.—*Math. H. Piéron* (Sorbonne).

1823. **Jasper, H. H. L'action asymétrique des centres sur la chronaxie des nerfs symétriques, droit et gauche, chez les mammifères.** (The asymmetric action of the centers upon the chronaxy of the right and left symmetric nerves in mammals.) *C. r. Soc. biol.*, 1932, **111**, 702–704.—As in the frog, experiments made upon rats and guinea pigs show an asymmetry in the chronaxy of subordination.—*Math. H. Piéron* (Sorbonne).

1824. **Knight, R. The explanation of animal behaviour.** *Nature*, 1932, **130**, 649–651.—A plea for more rigid application of the law of parsimony in the interpretation of animal behavior. Two reasons are given: the abundant evidence that brainless animals can profit by experience, and observation of the ease with which animals acquire the undeserved reputation for mental characteristics.—*E. H. Kemp* (Clark).

1825. **Macht, D. I. Effect of adenine and caffeine injections on behavior of rats in a circular maze.** *Proc. Soc. Exper. Biol. & Med.*, 1932, **29**, No. 8.—*W. S. Hunter* (Clark).

1826. **Maier, N. R. F. A study of orientation in the rat.** *J. Comp. Psychol.*, 1932, **14**, 387–399.—"The present study is an attempt to analyze the experience of a rat when it runs, let us say, from point A to point B. We may say that an association between A–B is formed. If this be the case then the association B–A, if established at the same time, would be a backward running association. On the other hand, the trip from A to B may produce the experience of a simultaneous relationship. In this case B would occupy a certain relative position with respect to A. But if the rat learned the position of B relative to A, would it at the same time have learned the position of A relative to B?" The rats ran pathways from one table to another and were later required to run them in the reverse direction. Variations involving triangular patterns of the path were used. The results indicate, according to the author, "that the rat can only apply its knowledge of the relationship B–A when (1) B–A has been experienced directly; and (2) A–B has been experienced as part of a larger pattern."—*N. L. Munn* (Pittsburgh).

1827. **Mann, I. Notes on the lateral eyes of *Sphenodon* with special reference to the macular region.** *Brit. J. Ophth.*, 1933, **17**, 1–15.—"The unique zoological position of the tuatera (*Sphenodon punctatus*) and the fact of its increasing rarity and probable imminent extinction render any opportunity for its investigation of the greatest interest." The author has examined a living specimen and has been able to correlate the ophthalmoscopic and slit-lamp appearances of its lateral eyes with histological specimens, both embryonic and adult. The following significant features have been noted: (1) the eyes are placed laterally, the angle between the optic axes being 160° or more. On the top of the head is a raised spot of lighter color marking the site of the pineal eye. The organ is covered with skin and cannot be seen except

on dissection. (2) The pupil reacts well to direct illumination, changing from a circle to a vertical slit. There does not appear to be any consensual reaction. (3) The fundus oculi affords a good example of a primitive unspecialized type. (4) The arrangement of the nerve fibers is interesting, as it shows that the human arrangement (radial on the inner side, and sweeping around to a temporal raphé on the outer, leaving a very definite area centralis in the situation of the human macula) is also the primitive one, and may well be the fundamental vertebrate arrangement, although it is not universal. (5) Histological examination of other specimens reveals the retinal layers to be essentially the same as in all vertebrates. The layer of bipolar cells shows considerable representation. No rods are present, but the cones are of several distinct kinds, both single and double, large and small. They are very long and thin in the fovea. (6) The strong resemblance in both embryonic and adult structure of the eyes of primates and rhynchocephalia "may possibly be interpreted as showing in the first place how early is the appearance of a retinal area specialized for form vision, or secondly, the human macula may be added to the lengthening list of man's primitive characters. . . . That the position of the eyes had originally nothing to do with the specialization of a fovea is obvious from its presence in *Sphenodon*, which cannot have any binocular vision at all, in birds, in which both binocular and uniocular vision are found, and in the primates, with true binocular and stereoscopic vision. . . . In all probability further research will reveal that the presence of a well formed fovea centralis is of more common occurrence among reptiles than is now supposed."—*R. J. Beitel, Jr.* (Clark).

1828. **Marinesco, N. L'influence du champ électrique atmosphérique sur les mouvements de veille et de sommeil des plantes.** (The influence of the atmospheric electric field upon the movements of waking and sleeping in plants.) *C. r. Soc. biol.*, 1932, **110**, 192–194.—The author admits that the periodic movements of leaves are provoked by the local diurnal variations of the electric field, this last functioning as accelerating potential of the flow of sap, which varies in one sense or another the turgescence of the motor swellings.—*Math. H. Piéron* (Sorbonne).

1829. **Maslow, A. H. The "emotion" of disgust in dogs.** *J. Comp. Psychol.*, 1932, **14**, 401–407.—The author found that dogs rejected dog flesh. If the meat was rendered odorless it was almost always accepted. Hence rejection seemed to depend upon odor, rather than any other characteristic of the flesh. There was no evidence of a "coarser emotional reaction" of disgust such as that posited by Sherrington in connection with his work on spinal preparations.—*N. L. Munn* (Pittsburgh).

1830. **Morrison, N. Hibernation of adders.** *Nature*, 1932, **129**, 473.—The possibility of the conversion of the interstitial tissues of the lung into adipose tissue for use during hibernation is suggested on the basis of the finding of extensive deposits of adipose tissue immediately surrounding the tracheal ring.—*E. H. Kemp* (Clark).

1831. **Parsons, C. W. Habits of the toad *Ceratophrys*.** *Nature*, 1932, **130**, 279.—An account of the eating of a small alligator.—*E. H. Kemp* (Clark).

1832. **Patrick, J. R., & Anderson, A. C. Further studies of the effect of incidental stimuli on maze learning with the white rat.** *J. Comp. Psychol.*, 1932, **14**, 335–343.—Groups of rats were trained to run a 14-blind multiple-T maze containing a number of "incidental stimuli." With one group the incidental stimuli were changed every third trial, with another group every fifth trial, etc. There is a tendency for the groups with frequent shifts in incidental stimuli to be less efficient than groups with infrequent shifts. The groups are small (5 to 10 rats) and there is no statistical check on the reliability of the differences observed. In general the results are in conformity with a previous study by the same authors.—*N. L. Munn* (Pittsburgh).

1833. **Pézard, A. Variation de l'oeil du Triton alpestre entre l'époque des amours et l'époque du repos annuel.** (Variation in the eye of the alpine triton between the mating period and the period of annual rest.) *C. r. Soc. biol.*, 1932, **110**, 948–950.—The alpine tritons are diurnal and aquatic at the mating period, while they are terrestrial and nocturnal the rest of the year. The author tried to discover whether these changes corresponded to variations in the structure of the retina which would explain the change in the behavior of the animals toward light. He found that at the mating period a certain swelling of the vitreous body increased the diameter of the eye by exposing the elements of the retina; with a series of other structural changes this swelling of the vitreous body may explain the changed reaction of the animal.—*Math. H. Piéron* (Sorbonne).

1834. **Rabaud, E., & Verrier, M. L. Contribution à l'étude de la vessie natatoire chez les poissons physoclistes.** (Contribution to a study of the swim bladder in physoclist fish.) *Bull. sta. biol. d'Arcachon*, 1932, **29**, 35–40.—The authors found that the swim bladder does not have the important rôle in equilibrium and vertical displacement of the fish which is classically attributed to it. Its suppression seems to be without consequence so far as rapidity and facility of movement is concerned.—*Math. H. Piéron* (Sorbonne).

1835. **Rabaud, E., & Verrier, M. L. Effets de faibles décompressions sur la vessie natatoire.** (Effects of weak pressure upon the swim bladder.) *C. r. Soc. biol.*, 1932, **109**, 1094–1096.—It is generally believed that the swim bladder of the fish undergoes variations in function according to the movements of the fish, variations which permit it to maintain itself at the level of its plane of equilibrium, and to displace itself in the vertical plane. The authors found by means of experiments that the bladder is very susceptible to changes in volume, but that a great variation in pressure is necessary to provoke variations in the volume of the bladder. When the fish rises, the gas in the bladder presses on the walls

of the organ and tends to traverse them, and the fish becomes heavier instead of lighter.—*Math. H. Piéron* (Sorbonne).

1836. **Ruch, F. L. The effect of inanition upon maze learning in the white rat.** *J. Comp. Psychol.*, 1932, **14**, 321–329.—Using a water maze in which the incentive was escape rather than a food reward, the author compared the performances of three groups of rats provided, respectively, with a maintenance diet, an ad libitum diet, and a diet which restricted the normal increase in body weight by 20%. The number of rats in a group ranged from 23 to 28. The reliability coefficients (corrected) for the errors on the first versus the second half of the maze ranged from .54 to .97. The animals maintained at body weight were more efficient, in both time and errors, than the restricted group or the group allowed to feed without restriction. The differences between the two last-mentioned groups were statistically insignificant.—*N. L. Munn* (Pittsburgh).

1837. **Tolman, E. C., & Honzik, C. H. "Insight" in rats.** *Univ. Calif. Publ. Psychol.*, 1930, **4**, 215–232.—A repetition, under somewhat different conditions and with a larger group of animals, of an earlier experiment by Hsiao, who found that 3 rats were capable of grasping "a material, inner relation of two things to each other." The present authors conducted 3 separate experiments with 3 different mazes. In the first experiment, the maze used was very similar to that previously used by Hsiao. However, no evidence of "insight" was obtained. Failure to verify the earlier findings was probably due to the fact that the amount and distribution of preliminary training was different in the two cases. Results from the second experiment were also negative. In the third experiment, "insight," in the sense in which the authors use the term, was definitely proved. "To explain the fact that no insight was obtained in Maze II although it was obtained in Maze III which had an identical ground pattern, it would seem important that Maze III had no side walls as did Maze II and hence the rats were able in Maze III to 'see' the situation as a whole. Or, even if the rats in Maze III were not able to 'see' all the paths at any one moment, they might still have been better able to grasp the connections between the paths, owing perhaps to the open space on all sides of the runways, which may have served to accentuate the relations between the paths."—*H. W. Karn* (Clark).

1838. **Tolman, E. C., & Krechevsky, I. Means-end readiness and hypothesis. A contribution to comparative psychology.** *Psychol. Rev.*, 1933, **40**, 60–70.—Each of the authors had already proposed independent concepts to define selectivity in animal responses. Tolman used the term "means-end-readiness," while Krechevsky called it "hypothesis" formation. The authors have agreed to re-define the terms to mean two different aspects of the same process, namely the systematic, docile, selective, self-initiated limitations in the response of an animal to a given stimulus situation. The more general aspect is to be called "means-end-readiness," the more specific a "hypothesis." An example would be running in alleys versus running only in alternate alleys. Trial and error learning is defined as the reduction of a means-end-readiness and an hypothesis, while trial and error unlearning is the reverse of this.—*A. G. Bills* (Chicago).

1839. **[Various.] Light and sexual periodicity.** *Nature*, 1932, **129**, 3; 344; 361; 543; 612; 655; 868; 906; **130**, 169; 665. Letters and observations by many investigators bearing on the general topic of the effect of light on the sexual periodicity of animals.—*E. H. Kemp* (Clark).

1840. **Verlaine, L. L'instinct et l'intelligence chez les Hyménoptères. XX. Les sociétés d'insectes ont-elles des traditions?** (Instinct and intelligence in the Hymenoptera. XX. Do insect societies possess traditions?) *J. de psychol.*, 1932, **29**, 784–816.—The author presents evidence from his own research and that of others which appears to indicate that the complex organization of wasp and bee societies is maintained by traditions which are "communicated to the group and to its descendants by example and imitation." There is a bibliography of 39 references, 27 of which deal with the author's own researches on wasps and bees.—*N. L. Munn* (Pittsburgh).

1841. **Verrier, M. L. Etudes des rapports de la forme, de l'habitat et du comportement de quelques crustacés isopodes.** (Studies of the relationship of form, environment and behavior in some isopodic crustaceans.) *Bull. biol. fr. et belg.*, 1932, **66**, 200–231.—Isopodic crustaceans have extremely varied ways of life. They are found in the arid regions of the north of Africa, of Syria, and of Persia. They are also found in France, living in obscure and damp places, on the coasts, and in the lakes and rivers. According to the classic conceptions of adaptation, positive variations of form, structure and behavior should correspond to these diverse habitats. The author studied especially a sample from each habitat: a Saharan wood-louse (*Hemileptistus reaumuri*); a wood-louse common to France (*Oniscus murarius*); an aquatic species (*Asellus aquaticus*), and a cavern-dwelling species (*Coecosphaeroma burgundum*). After making an anatomical and physiological study of these species, the author studied the habitat and the behavior in the native milieu and under the influence of variations of light, heat, and humidity, and tried to establish a comparison between the structure, the habitat and the ecology of the various species, and to ascertain what relations existed between the morphology of the organs studied and the ecology of each individual. It appears from this study that variations in habitat determine sensible variations in behavior and less sensible variations in morphology.—*Math. H. Piéron* (Sorbonne).

1842. **Viaud, G. Sur le phototropisme des daphnies; rôle de la mémoire dans le phototropisme.** (On phototropism in *Daphnia;* the rôle of memory in phototropism.) *C. r. Acad. sci.*, 1932, **195**, 496–498.—The author attempted to establish a method of precise and practical measurement. He began with the idea that since tropism is a mechanical manner of behavior, it should be possible to measure it like physical

forces, by the speed which it is able to impress upon a material system. The author considers as a material system submitting to the force of tropism the whole of a population, conceived as concentrated at a point which can be called its center of gravity. The displacement of the center of gravity of this numerical mass of a population at a given time furnishes a measure of phototropism of the population, whatever the actual movements of individuals, either positive or negative. The author tries to determine to what degree the phototropism of a population at a given moment is influenced by previous tropistic experiences, and he finds that the rôle of memory is clear. This shows that tropism is not a simple reflex and that it involves the nervous centers in their entirety.—*Math. H. Piéron* (Sorbonne).

1843. **Warden, C. J. The relative strength of the primary drives in the white rat.** *J. Genet. Psychol.*, 1932, **41**, 16–35.—A review is made of the results of many studies with the Columbia obstruction method, in which each of five different drives was isolated and measured: maternal, thirst, hunger, sex, and exploratory. The strength of each drive was measured in terms of the number of times the animal would cross a grid electrified in constant and measured voltages, to reach its incentive-object, that particular drive being made dominant and the others relatively quiescent. On the basis of the maximal scores obtained, the drives were given a ranking of strength in the order of mention above. Incidentally, the influences of other special conditions were referred to; e.g., segregation, gonadectomy, etc.—*J. F. Dashiell* (North Carolina).

1844. **Warner, L. H. The association span of the white rat.** *J. Genet. Psychol.*, 1932, **41**, 57–90.—For the comparative study of learning in different phyla the association span is suggested, defined as "that length of time which is the maximum which can be introduced between any two stimuli still permitting their association." A locomotor response (escape by crossing a fence) to a sound stimulus warning of an electric shock to follow, was selected as having nearly universal applicability; and the white rat was used as a typical subject. After preliminary trials 50 per day were given four groups of animals, with respectively 1, 10, 20, and 30 minutes' interval between warning and shock, and qualitative analyses of the responses were made until the correct crossings in response to the sound should occur in six successive trials. 30-second intervals seemed beyond the capacity of the animals; hence it is concluded that with most white rats the association span may be as long as 20 but not as long as 30 seconds. Since the fence-jumping in response to the sound was qualitatively different from the jerky hop elicited by the shock, it would seem that the modification of behavior is something different from the conditioned reflex. A wiring diagram of the set-up used is furnished.—*J. F. Dashiell* (North Carolina).

1845. **Warner, L. H. An experimental search for the "conditioned response."** *J. Genet. Psychol.*, 1932, **41**, 91–115.—In another study by the author (see preceding abstract) apparently satisfying the requirements for the conditioning of a reflex, a substitution of stimuli was secured, but the responses to the original and to the substitute stimuli were qualitatively different. In the present study other situations (box-without-fence, suspended cage, parallel bars, and a high fence) with different arrangements of visual and auditory warning signals were tried out, the defensive reflexes called out being in all cases simple. But always in spite of similarity in the end-results, the responses to the original and to the substitute stimuli were observably different in character. It is concluded that the conditioned response hypothesis must be employed more critically.—*J. F. Dashiell* (North Carolina).

1846. **Whiting, P. W. Reproductive reactions of sex mosaics of a parasitic wasp, *Habrobracon juglandis*.** *J. Comp. Psychol.*, 1932, **14**, 345–363.—A study of 50 gynandromorphs showed that the sexual responses were governed by the head rather than by the abdomen. That is, if the head was male the responses were male, regardless of the sex of the abdomen. If the head was female the responses were female. Wasps with female heads made the stinging and egg-laying reaction to caterpillars. Wasps with male heads made the sex reactions to females and were indifferent to caterpillars. The wasps with mixed heads (male and female) manifested atypical behavior. Bisexual responses were manifested by some mixed types.—*N. L. Munn* (Pittsburgh).

1847. **Wolf, E. The visual intensity discrimination of the honey bee.** *J. Gen. Physiol.*, 1933, **16**, 407–422.—Intensity discrimination is tested in bees by means of a modification of the acuity apparatus previously used by Hecht and Wolf. The results show that the discriminating power of the bee's eye varies in very much the same way with illumination as does that of the human eye; i.e., discrimination is poor at low intensities and becomes better at higher intensities. The probable error of the discrimination ratio decreases with increasing intensity in the same way as does the discrimination ratio itself. This and other relations show that the measurements exhibit an internal self-consistency. The range over which a human eye can discriminate intensities is much greater than that for the bee, and the intensity discrimination of the bee is about twenty times as poor as that of human beings.—*C. H. Graham* (Clark).

1848. **Young, P. T. Relative food preferences of the white rat.** *J. Comp. Psychol.*, 1932, **14**, 297–319.—Rats were required to choose between pairs of test foods exposed for from one to two seconds in uniform glass tubes. Criteria for the existence of preferential tendencies are discussed. It was found that milk was preferred to sugar, sugar to butter fat, butter fat to wheat, and wheat to flour. "The rats were markedly uniform in the preferences exhibited, and individual differences were limited to foods near together on the preferential continuum." The preference for a particular food became more marked as the experiment progressed.—*N. L. Munn* (Pittsburgh).

[See also abstracts 1651, 1686, 1747, 1769, 1779, 1854.]

EVOLUTION AND HEREDITY

1849. [Anon.] **Eugenical sterilization: 1932.** *Eug. News*, 1932, **17**, 112–113.—A statistical table of "operations for eugenical sterilization in the United States" summarizes the situation as of December 1, 1931. Of the more than 15,000 individuals in 30 of the United States "who have been sterilized for eugenical purposes . . . no one has ever suggested that in a single case has the state made a mistake by destroying valuable human breeding stock."—*M. V. Louden* (Pittsburgh).

1850. [Anon.] **Fecundity relative between college and non-college women.** *Eug. News*, 1932, **17**, 113–114.—Here are reported questionnaires being used by Goodsell, professor of education in Teachers College, Columbia University, in "a study of approximately 1,000 cases of college women and 1,000 cases of their sisters, cousins and friends of the same social class in order to discover whether the families of college women are smaller than those of their friends and relatives who did not go to college."—*M. V. Louden* (Pittsburgh).

1851. [Anon.] **Musical capacity.** *Eug. News*, 1932, **17**, 124–125.—The pedigree with reference to musical qualities of Edmund Severn, composer, violinist, and lecturer. A brief comment is made on evaluation of signs of inheritance of special talents.—*M. V. Louden* (Pittsburgh).

1852. **Blacker, C. P. The sterilization proposals.** *Eug. Rev.*, 1931, **22**, No. 4.—*W. S. Hunter* (Clark).

1853. **Chavigny, M. Un chapitre de la psychologie de l'hygiène: l'eugénique.** (A chapter from the psychology of hygiene: eugenics.) *Ann. méd.-psychol.*, 1932, **90**, 22–33.—A discussion, from the viewpoint of a eugenist, of the following topics: (1) venereal diseases; (2) pre-marriage medical certificates; (3) sterilization of mental defectives. The author traces the progress of the eugenic movement in various countries throughout the world in its attempt to deal with the above mentioned factors by means of dissemination of sex information, medical treatment, and legislation.—*H. W. Karn* (Clark).

1854. **Daly, C. D. Pre-human psychic evolution. A hypothetical theory of the psychological evolution of our species in pre-glacial, glacial, and early post-glacial epochs.** *Brit. J. Med. Psychol.*, 1932, **12**, 273–286.—"These phantasies are founded on a study of natural history, mythology, folklore, anthropology, and allied branches of science, aided by the interpretative methods of psycho-analysis."—*E. R. Hilgard* (Yale).

1855. **Dawson, S. Intelligence and fertility.** *Nature*, 1932, **129**, 191–192.—Individual Binet tests were given to more than 1200 children of ages three to fourteen years, and the results of these tests have been correlated with the size of the family to which each child belonged. The population studied was below the average both socially and intellectually. Correlations found were small but significant and showed a tendency for dull children to belong to larger families. It is shown conclusively, according to the author, that the birth rate is highest among the dullest members of the community, and that, in spite of their higher mortality, they appear to be leaving a larger proportion of survivors. It appears that dullness is being bred rather than intellect.—*E. H. Kemp* (Clark).

1856. **Gun, W. T. J., & Buer, M. C. The kin of genius. III.** *Eug. Rev.*, 1931, **22**, No. 4.—*W. S. Hunter* (Clark).

1857. **Haldane, J. B. S. The hereditary transmission of acquired characters.** *Nature*, 1932, **129**, 817–819; 856–858.—As a result of experimental work by many investigators, much of which is summarized, the majority of geneticists take the view that characters acquired as the result of external influences are rarely inherited, so rarely that the exceptions are of little importance either for the explanation of evolution or the practical problems of the breeder or eugenist.—*E. H. Kemp* (Clark).

1858. **Lam, M. Intermarriage in Hawaii.** *Sociol. & Soc. Res.*, 1932, **17**, 159–166.—The genealogy and fortunes of a single family of mixed racial origin are traced through six generations to the present time, with a consideration of the kind of persons intermarrying, the factors determining marriage choices, the racial trend in intermarriage, and the achievements of hybrids and their progeny.—*J. R. Hilgard* (Yale).

1859. **Lebedinsky, M. [The problem of heredity and the method of twin investigation.]** *Psikhol.*, 1932, Nos. 1–2, 163–204.—After investigating the psychomotor development, intellectual level, and characters of several pairs of twins, the author finds much difference in twins, due to differences in education, environment, and other factors. The method of twin investigation permits a study of the comparative rôles of biological factors and environment in the evolution of the intelligence.—*A. Yarmolenko* (Leningrad).

1860. **Lewis, A. J. Genetic problems in psychiatry.** *Eug. Rev.*, 1931, **23**, No. 2.—*W. S. Hunter* (Clark).

1861. **Pearl, R. Some data on fertility and economic status.** *Human Biol.*, 1932, **4**, 525–553.—Fertility and income data of 581 white and 145 negro women appearing before the Bureau for Contraceptive Advice of Baltimore were analyzed. The pregnancy rate of these women was higher than that of comparable samples of women from the general population. Both white and negro women show a small but statistically significant negative correlation between economic status and pregnancy rate and economic status and birth rate. Neither group show significant intra-group correlations between economic status and reproductive wastage (measured by the number of abortions and/or miscarriages per 100 pregnancies). The mean pregnancy and birth rates of the negro women were higher than those of the white women, and the economic status of the former was lower than that of the latter. The reproductive wastage rate of the negro women was less than that of the white women in spite of their higher fertility.—*O. W. Richards* (Yale).

1862. **Walters, M. The inheritance of left-handedness.** *Eug. News*, 16, No. 6.—*W. S. Hunter* (Clark).

1863. **Wiener, A. S. The manner of clasping the hands and folding the arms.** *Eug. News*, 1932, 17, 121–122.—"A large series of families was studied with reference to the manner of clasping the hands and folding the arms. The results indicate that these traits are not hereditary, show no correlation with sex, handedness or each other. They are probably habits formed early in life, which then remain constant throughout life." A bibliography of four references is appended.—*M. V. Louden* (Pittsburgh).

1864. **Wilson, P. T., & Jones, H. E. Left-handedness in twins.** *Genetics*, 1932, 17, 560–571.—A report of the investigation of 386 twins and 521 single-born in the schools of Oakland, Berkeley, and San Francisco. The classification of twins into groups of identical, fraternal, and undetermined showed extremely high consistency with the classification of 80 of the same pairs by another investigator who studied them three months later. Traits studied were: hand used for throwing, hand used for writing, dominant eye, and crown whorl. Only the "throwing hand" criterion showed a reliable difference between the occurrence of left-handedness in twins and in single-born; even this criterion showed no reliable difference between identical and fraternal or between like-sexed and unlike-sexed groups.—*E. H. Kemp* (Clark).

[See also abstracts 1687, 1717, 1846, 1950, 2078.]

SPECIAL MENTAL CONDITIONS

1865. **Alberti, H. v. Weibliche Gedanken zur Psychoanalyse.** (Feminine thoughts on psychoanalysis.) *Zsch. f. Menschenk.*, 1932, 7, 173–183.—To the woman who finds it difficult to reconcile herself to her sex psychoanalysis may open up the way to genuine inner freedom and self-realization.—*R. B. MacLeod* (Cornell).

1866. **Alexander, F. Ziel und Wirkungskreis des neuen Instituts für Psychoanalyse in Chicago.** (The aim and plan of work of the new Institute for Psychoanalysis in Chicago.) *Psychoanal. Bewegung*, 1932, 4, 530–533.—Psychoanalysis has found its place as basic to a new psychology. It has a place in relationship to anthropology, criminology, pedagogy, esthetics, and sociology. It is making necessary for its practice such institutes as the one recently established in Chicago. Endowed by private individuals, this institute starts under most favorable circumstances, and promises to make new contributions to the field that have been impossible for European institutes to undertake.—*A. B. Herrig* (Michigan Central State Teachers College).

1867. [**Anon.**] **Physiology of the "aura."** *Nature*, 1932, 129, 197; 275.—An explanation of the "aura" or "human atmosphere" held by spiritists to be due to a misty emanation which envelops the living body but cannot penetrate the clothes. Fraser-Harris is said to have explained this phenomenon as due to temporal retinal induction. In the second note the explanation by Edridge Green is given, according to which the phenomenon is held to be due to movement of the photochemical fluid in the interretinal space.—*E. H. Kemp* (Clark).

1868. **Billström, J. Experimentelle Studien über Hypnotismus.** (Experimental studies in hypnotism.) *Acta Soc. Med. Suecanae*, 1931, 57, 167–172.—Discussion of a number of cases drawn from the studies of Alrutz.—*R. B. MacLeod* (Cornell).

1869. **Bjerre, P. Död og fornyelse.** (Death and rejuvenation.) Oslo: Fabritius & Sönners Forlag, 1932. Pp. 407.—A Norwegian translation by E. Rönne-Peterson of the latest book by the well-known Swedish psychoanalyst Poul Bjerre.—*M. L. Reymert* (Mooseheart Laboratory for Child Research).

1870. **Bouts, P., & Bouts, C. La psychognomie. Lecture méthodique et pratique du caractère et des aptitudes.** (Psychognomy. Methodical and practical reading of character and aptitudes.) Paris: Masson, 1932. Pp. 100. Fr. 40.00.—*Math. H. Piéron* (Sorbonne).

1871. **Driesch, H. Parapsychologie, die Wissenschaft von den "okkulten" Erscheinungen.** (Parapsychology, the science of "occult" manifestations.) Munich: Bruckmann, 1932. Pp. 149. M. 4.80.—*R. R. Willoughby* (Clark).

1872. **Dudley, E. E., Goadby, A., & Carrington, H. Finger print demonstrations.** *Bull. Boston Soc. Psych. Res.*, No. 18. Pp. 17.—"Margery," the medium (Mrs. L. R. G. Crandon of Boston), has produced at seances since 1924 numerous thumb prints in plastic material claimed to belong to her brother "Walter," who had died many years previously. These thumb prints, with accompanying arguments, were published over a period of years in a number of psychic research journals scattered over the world. They were supposed to constitute "proof of the supernormal." These prints were also published in the August 18, 1928, issue of *Nature*. Dudley set about obtaining finger and thumb prints of a large number of persons who had been associated with the early stages of the mediumship. Among these were the prints of a man who attended some of the early seances, and who since 1925 has had little or no contact with the case. He readily gave his thumb and finger prints to the investigators. Much to this man's surprise, his thumb prints were found to be in every way identical with those published as belonging to the deceased "Walter." The seance finger prints and those of the living man are published side by side, and there is no question of their complete identity. The Walter finger prints are identified as belonging to "the very man who supplied Margery with the original Keer, showed her how to make thumb prints in it, and gave her three-dimensional impressions of his own thumbs." He had not discovered that the published "Walter" thumb prints were his own until this was pointed out to him by the authors of the paper.—*H. Hoagland* (Clark).

1873. **Freistadt-Lederer, A. Eine Frau allein.** (A woman alone.) *Psychol. Rundschau*, 1933, 4,

215–219.—A survey of the book by Agnes Smedley on her life, with a psychoanalytical explanation. Conditioned by the home with a cruel father and a mother who did not understand her, a personality grew up which made marital happiness impossible. The author reviews these influences and comments on them as causal factors.—*A. B. Herrig* (Michigan Central State Teachers College).

1874. **Freud, S. Eine Vorlesung.** (A lecture.) *Psychoanal. Bewegung*, 1932, **4**, 481–497.—Freud discusses in a humorous vein the critics of psychoanalysis, the popular judgments, and the uses that have been made of it, often with a background of superficial understanding. He also discusses offshoots of psychoanalysis, particularly the Adler individual psychology. Each has taken a separate phase of psychoanalysis and emphasized it as a theory. Freud surveys his own contribution, the phases that have interested him, and the contributions that have been made by others. He expresses himself as especially pleased with the researches into child psychology by his daughter, Anna Freud, which throw valuable light on adult psychology. He comments on the uses of psychoanalysis in child training, and hopes in the future training will steer more wisely between the Scylla of freedom and the Charybdis of discipline.—*A. B. Herrig* (Michigan Central State Teachers College).

1875. **Freud, S. Theoretische Schriften (1911–1925).** (Theoretical writings, 1911–1925.) Vienna: Int. Psychoanal. Verl., 1931. Pp. 406. M. 9.00.—(Not seen).

1876. **Glover, E. Die Normalität vom medizinisch-psychologischen Standpunkt.** (Normality from the medical-psychological standpoint.) *Psychoanal. Bewegung*, 1932, **4**, 534–552.—The medical man has always had the problem of the neurotic type to meet. Recently psychology has encroached upon this field, as well as upon theology, metaphysics and sociology. Psychoanalysis has rendered invaluable aid in the defining of normality. Child development toward adult normality is traced and character types in adulthood discussed. Normality in adulthood lies in recognition of and adjustment to reality. Development consists in such a modification of natural urges that contact with reality will be conducive to the maximum of satisfaction and of safety to the individual.—*A. B. Herrig* (Michigan Central State Teachers College).

1877. **Jung, C. G. Modern man in search of a soul.** London: Routledge, 1932.—(Not seen).

1878. **Kienzle, R. Das bildhafte Gestalten als Ausdruck der Persönlichkeit.** (Pictorial forms as expressions of the personality.) Esslingen: Burgbücherei, 1932. Pp. 180. RM. 5.—All pictorial form is not only an expression of a conceptual common self but likewise of a sculptor's self. "Person" and "figure" (*Bild*) are combined with one another by means of wholly definite laws of form. The quest for this connection resulted from a study of about 10,000 drawings of children and adults. For control purposes systematically arranged series of experiments were performed, which verify the empirically discovered results: morphologically we differentiate four types of pictorial forms, the implicative, explicative, non-structural, and constructive. The question of correlation and of the origin of these pictorial forms is explained by urge-and-thought psychology, and the degree of development of the pictorial forms in a child and youth are determined. In connection with that, the author examines the problem of drawing talent and of creative genius. The examination of the picture's expression-content shows further, through the psychological analysis of formation, that to the four types of pictorial formation correspond four types of figures which as phenotypes (*Phänotypen*) are to be traced to two fundamental basic types: the *structive* and the *complex*. The psychological analysis of style of works of art, and the comparison of pictorial creation, style, and writing of the children confirm this result. Thus there arise problems about the formation of the personality, the teachings of temperament, and the relationship of *Anlage* and *milieu*. In a detailed listing of literature are collected the most important works which have appeared to date on the psychology of child drawing and art.—*R. Kienzle* (Tübingen).

1879. **Kiessling, A. Die personaldiagnostische Bedeutung des Fehlers.** (The personal-diagnostic significance of errors.) *Vjsch. f. Jugendk.*, 1932, **2**, 232–236.—Following Weimer's useful classification of errors, a profile may be made of any individual. Each of the five general classes with sub-classes corresponds to personality traits, e.g. speed errors to superficial thought, similarity errors to inexact thought, etc. The typical errors therefore indicate the characteristics of the individual. An example is given. Other classifications are discussed.—*M. Lee* (Chicago).

1880. **Klein, M. Grenzen und Möglichkeiten der Kinderanalyse.** (Limits and possibilities of child analysis.) *Psychoanal. Bewegung*, 1932, **4**, 507–512.—A review of the concluding chapter of the author's book, *Psychoanalysis of the Child*. The training for adulthood is an effort to bring the urges of the libido in harmony with the demands of the higher self. The author sees in child psychoanalysis opportunity for release of fears, fixations and urges, permitting the super-ego its right adjustment. The early fear situations are the basis of all neurotic disturbances, and psychoanalysis can mitigate these. The therapeutic values of child psychoanalysis reach much farther than does adult psychoanalysis. Many cases of criminality and psychic disturbances could be avoided by earlier psychoanalysis.—*A. B. Herrig* (Michigan Central State Teachers College).

1881. **Kleitman, N. New methods for studying motility during sleep.** *Proc. Soc. Exper. Biol. & Med.*, 1932, **29**, No. 4.—*W. S. Hunter* (Clark).

1882. **Kouretas, D., & Scouras, P. Sur un trouble particulier du sommeil: le cauchemar.** (A disturbance peculiar to sleep: the nightmare.) *Encéph.*, 1932, **27**, 622–627.—A case history of a patient subject

to frequent nightmares. The principal objective phenomenon of the nightmare is the complete absence of muscular tonus. Subjective phenomena are inquietude and anguish, which are secondary manifestations, reflecting the cenesthetic impression of the abolition of tonus upon the subconscious. The subject is thus brought to seek for causes justifying this state, mysterious external forces, savage animals, demons, etc. In consequence the nightmare is not at all characterized by phenomena of excitation.—*Math. H. Piéron* (Sorbonne).

1883. **Kranefeldt, W. M. Bericht über das Yoga-Seminar von Prof. Dr. J. W. Hauer.** (Report on the Yoga-seminar of Prof. J. W. Hauer.) *Zentbl. f. Psychotherap*, 1932, **5**, 707–713.—At the invitation of the Psychological Club of Zürich (the circle surrounding Jung), the Indologist Hauer of Tübingen held a seminar on the Yoga in October, 1932. He treated especially the Kundalini or Tantra Yoga on the basis of the Sanskrit text *The Six Bodily Centers*, which is known in the West through Arthur Avalon's translation *The Serpent Power* (London, 1919). These centers (*Cakra*) represent psychic experiences which in time, place and expression are widely separated from us and can be understood only by persons having an inner affinity for them. Approaching the subject through religious history, Hauer brought out the dual man-woman principle, which is the distinguishing characteristic of the Tantra Yoga, and the predominance of one or the other aspect at various eras. A similar rhythm occurs in other religions, including Christianity. Hauer discusses the Hindu methods of experiencing the divine and their working-out in the attitude toward death and evil; also the different forms of Yoga, their metaphysics, the misunderstandings of the West concerning them, and the interpretation of the *Cakra*. The Tantra Yoga is an attempt to bring harmony into a life which threatens to succumb to a chaotic outbreak of its deepest forces. For this purpose it has created symbols which are the organic forms of experiences that could not be grasped otherwise. The central idea of the *Cakra* is a hierarchy of the unity of opposites.—*M. E. Morse* (Hyattsville, Md.).

1884. **Künkel, H. Keine Angst vor dem Schicksal!** (No fear of fate!) Pfullingen: Baum, 1932. Pp. 19. M. 0.60.—*R. R. Willoughby* (Clark).

1885. **Likert, R. A technique for the measurement of attitudes.** *Arch. of Psychol.*, 1932, No. 140. Pp. 55.—The project conceived in 1929 by Gardner Murphy and the writer aimed first to present a wide array of problems having to do with five major "attitude areas"—international relations, race relations, economic conflict, political conflict, and religion. The kind of questionnaire material falls into four classes: yes-no, multiple choice, propositions to be responded to by degrees of approval, and a series of brief newspaper narratives to be approved or disapproved in various degrees. The monograph aims to describe a technique rather than to give results. The appendix, covering ten pages, shows the method of constructing an attitude scale. A bibliography is also given.—*E. M. Achilles* (Columbia).

1886. **Löwy, S. Die verschiedenen Träume derselben Nacht.** (The different dreams of the same night.) *Ber. VI allg. ärztl. Kong. Psychotherap.*, 1931, 205–209.—Lying hidden behind the apparently different dreams of the same night, phases of the same biological affective process may be discovered. The determination of the common factors in these is of central importance.—*R. B. MacLeod* (Cornell).

1887. **May, M. A. Statistical methods in personality study.** *J. Amer. Statis. Asso.*, 1931.—*W. S. Hunter* (Clark).

1888. **McGeoch, J. A., & Whitely, P. L. Correlations between certain measurements of personality traits and of memorizing.** *J. Educ. Psychol.*, 1933, **24**, 16–20.—In a preliminary experiment to test the hypothesis that personality traits are associated with performance in learning, the Colgate B2 and C2 Tests and the Pressey X-O Tests yield no important correlations with the immediate and delayed recalls of verbal materials. There is a very low but consistent tendency for submissiveness (Allport A-S) and introversion (Conklin) to be associated with better learning.—*J. A. McGeoch* (Missouri).

1889. **Meyer, F. M. Morphinismus und Sexualität.** (Morphinism and sexuality.) *Med. Welt*, 1931, **39**, 1393–1395.—Addiction to morphine and cocaine is the result of a neurotically split personality, frequently involving sexual conflicts. An understanding of the conflict is necessary for complete cure.—*R. B. MacLeod* (Cornell).

1890. **Miles, W. R. Abilities of older men.** *Person. J.*, 1933, **11**, 352–357.—Age curves, showing ability at different ages from 10 to 89, are given. Functions measured were visual acuteness, mobility, immediate memory, judgment for position, and "good judgment." Maximum performance ability in a wide range of functions usually occurs between ages 18 and 49 and as a rule in the earlier half of this period. The decline is not precipitous but progressive throughout later adult life. 10% to 25% of the men classified in later maturity and old-age groups are able to do as well in most tests as the average in the middle maturity or most efficient group.—(Courtesy *Person. J.*).

1891. **Multaretuli. Goethe über die Psychoanalyse.** (Goethe and psychoanalysis.) *Psychoanal. Bewegung*, 1932, **4**, 498–504.—The concluding article in which the author has Goethe continue to express himself as to the findings of Freud and his own understanding of it. He interprets his own psychical and emotional life in relation to it, and pays tribute to the greatness of Freud as a psychologist who has opened the door to human understanding.—*A. B. Herrig* (Michigan Central State Teachers College).

1892. **Murphy, L. B. Personality tests for clinical use.** *J. Abn. & Soc. Psychol.*, 1932, **27**, 168–171.—The past few years have been extremely fertile in the production of reliable objective methods of observing and recording the behavior of children, but clinics

are still depending on the undeniably useful "case history," subject to all the difficulties of faulty memory, inept description, second- and third-hand reporting of facts, not to mention inevitable emotional bias and the lack of amenability to quantitative statement. Test techniques could provide either a practical check on home reports, or possibly, in time, take the place of some of the case reports except for certain historical elements.—*C. H. Johnson* (Boston Psychopathic Hospital).

1893. **Nunberg, H. Psychoanalyse des Schamgefühls.** (Psychoanalysis of the feeling of shame.) *Psychoanal. Bewegung*, 1932, **4**, 505–507.—Although the origin of the sense of shame is hidden, it is recognized as a reaction against exhibitionism. It is coupled with the fear of blushing and probably hides the castration fear. In this the author agrees with Freud. Two objections, however, arise to this viewpoint: (1) women can have no castration fear and they do feel shame; (2) shame does not center upon the genitals alone. He discusses the phenomenon of shame in neurotic cases.—*A. B. Herrig* (Michigan Central State Teachers College).

1894. **Reichert, W. Grundformen der Weltanschauung.** (Basic forms of world attitudes.) *Vjsch. f. Jugendk.*, 1932, **2**, 201–207.—In this second article the author discusses three world attitudes: heroism (which represents German idealism), Catholicism, and Protestantism. He points out that each in a different way bridges the gap between the finite and the infinite. The attitude of an individual is determined by his whole development and is so bound up with his inner self that he cannot change it. We should therefore seek to understand, not criticize.—*M. Lee* (Chicago).

1895. **Schneider, K. Entwicklung zum Feminismus durch die Erziehung.** (Development toward the feminine as a result of education.) *Krim. Monatsh.*, 1931, **5**, 268–270.—Description of the life courses of two male homosexuals, each of whom owes his abnormal development to faulty education rather than to faulty heredity and later erotic experiences.—*R. B. MacLeod* (Cornell).

1896. **Schrenck-Notzing, A. F. v. Die Phänomene des Mediums Rudi Schneider.** (Phenomena manifested by the medium Rudi Schneider.) Berlin: de Gruyter, 1933. Pp. 170. M. 5.00.—*R. R. Willoughby* (Clark).

1897. **Selling, L. S. Effect of conscious wish upon dream content.** *J. Abn. & Soc. Psychol.*, 1932, **27**, 172–178.—Two groups were studied, the first a group of 200 juvenile delinquents, the other a group of 100 convicts. The findings suggest that the active emotions are the principal basis for dreams. However, the fact that the primary cause of dreams is easily detectable in these individuals does not preclude, necessarily, the existence of subconscious material, although it shows that the superficial material is more readily treated by modern psychological methods, and that an attempt to ignore the obvious in dreams will lead to fallacy. Dream content apparently caused by affect or recency should be explained along these lines rather than upon a sexual or other far-fetched basis.—*C. H. Johnson* (Boston Psychopathic Hospital).

1898. **Siegmund, H. Die Entwicklung des Schamgefühls und seine Auswirkungen.** (The development of the sense of shame and its effects.) *Psychol. Rundschau*, 1933, **4**, 203–206.—Many reasons have been given for the feeling of modesty relative to the genital organs. The author suggests that possibly the effort to adorn the body has started with clothing of these parts of the body to attract the opposite sex. Another possibility exists in man's effort to suppress the physical by hiding it, thus giving emphasis to the intellectual in his struggle against the animal world about him. The two attitudes, emphasis upon the physical and emphasis upon the spiritual, are contrasted in the article.—*A. B. Herrig* (Michigan Central State Teachers College).

1899. **Smith, M. The genius as leader and person.** *Sociol. & Soc. Res.*, 1932, **16**, 527–539.—It is important not only to view the genius as a complex interrelation of traits but to understand the paramount importance of the social factors involved. The relationship of the genius with his own group and with individuals outside of this group, together with the relations of the genius with other groups as a whole, should be considered. A study of the genius' conception of himself would throw light on the total problem. The author presents an outline which is suggestive for further work along this line.—*J. R. Hilgard* (Yale).

1900. **Spearman, C. Aufruf zur Zusammenarbeit in der Persönlichkeitsforschung.** (Appeal for coöperative work in personality investigation.) *Indus. Psychotechn.*, 1932, **9**, 380–382.—Spearman reports a plan, sponsored by Thorndike and other psychologists of different schools, to work out in coöperation what seem to be the essential aspects of personality and to develop means and methods for personality studies. Psychologists are asked to send in their lists of what they consider necessary factors of personality, with suggestions for a constructive program of work. Correspondence about the plan should be sent to K. Holzinger, University of Chicago.—*C. Burri* (Chicago).

1901. **Sterba, R. Der kosmologische Gesichtspunkt in Freuds Trieblehre.** (The cosmological viewpoint in Freud's instinct doctrine.) *Psychoanal. Bewegung*, 1932, **4**, 526–529.—An article dealing with Freud's early recognition of the urges as motive forces to higher psychic activity. In his analysis he sees the harmony of the physical and the psychical. In his speculations relative to these urges Freud forces into recognition the union of the macrocosm and the microcosm as one in the individual. These urges have their root in age-long cosmic happenings repeating themselves in individual lives. We are a part of the entire cosmos.—*A. B. Herrig* (Michigan Central State Teachers College).

1902. **Suttie, I. D., & Suttie, J. I. The mother: agent or object? II.** *Brit. J. Med. Psychol.*, 1932, **12**, 199–233.—After disposing of the death, social, reproductive, and parental instincts, the authors formulate a genetic theory of instinct rooted in the

fundamental mother-attachment of infancy. This attachment is nutritive and associative rather than sexual. Each stage in development requires the acceptance of a mother-substitute. Many of the familiar psychoanalytic problems are discussed from this viewpoint: the stresses and traumata of family life, the adaptation to fatherhood and its pathology, the stresses in the adaptation to childhood and social life. The criticisms are directed primarily at Freud, although the Adlerian conceptions are also attacked. The paper ends with a note on "The passing of the Oedipus psychology."—*E. R. Hilgard* (Yale).

1903. **Tournay, A. L'action régulatrice du sympathetique sur la sensibilité.** (The regulatory action of the sympathetic on sensitivity.) *J. de psychol.*, 1932, **29**, 831–847.—The author reviews the literature, much of it his own work, which indicates that sensitivity, especially pressure and pain, is influenced by the sympathetic system. Some of the data show that asymmetrical injury to the sympathetic system leads to a decreased chronaxy for sensitivity on the side of the injury. Bibliography.—*N. L. Munn* (Pittsburgh).

1904. **Tremmel, E. Nach Analogie der aktiv-analytischen Traumdeutung analysierte Handzeichnungen.** (Drawings analyzed according to the analogy of active-analytical dream interpretation.) *Ber. VI allg. ärztl. Kong. Psychotherap.*, 1931, 187–196.—Discussion of the diagnostic value of the analysis of purposeless, relatively automatic sketches according to the "active" method of Stekel.—*R. B. MacLeod* (Cornell).

1905. **Vetter, G. B., & Green, M. Personality and group factors in the making of atheists.** *J. Abn. & Soc. Psychol.*, 1932, **27**, 179–194.—The study is based on 350 replies from members of the American Association for the Advancement of Atheism. The most common "causes" given for anti-religious attitudes were: wide reading of history, science and religion (75 times); disgust with religious hypocrisy (60); influence of particular author or book (55); a by-product of Socialist materialism (30); effects of college education (25); effects of study of sciences (25); and others in lesser numbers. Less frequently emotional factors were mentioned, such as: illness and death in family, the horrors of war, the futility of prayer, the evils and unhappiness in the world, etc. 36% of the atheists were oldest children, while only 15% were youngest children; about 9% were only children.—*C. H. Johnson* (Boston Psychopathic Hospital).

1906. **Weinberg, D. Contribution à l'étude expérimentale de quelques différences de caractères chez les garçons et les filles.** (Contribution to the experimental study of some character differences between boys and girls.) *Bull. Soc. de sexol.*, 1932, **1**, 57–66.—Of all the signs of psychological differences between the sexes, the differences of affectivity and of character seem the most important. The author submitted 85 questions adapted from Woodworth's questionnaire to 330 boys and 252 girls, aged 10 to 16 years. These questions had to do with the habits of the child, his preferences and his sentiments. It appears from these experiments that even before puberty there are clear-cut differences between the sexes.—*Math. H. Piéron* (Sorbonne).

1907. **Weinhandl, F. Charakterdeutung auf gestaltanalytischer Grundlage.** (The significance of character from the Gestalt-analytical viewpoint.) Langensalza: Beyer, 1931. Pp. 43. (*Manns Päd. Mag.*, No. 1324.)—*W. S. Hunter* (Clark).

1908. **Welles, H. H. The measurement of certain aspects of personality among hard of hearing adults.** *Teach. Coll. Contrib. Educ.*, 1932, No. 545. Pp. viii + 77.—528 Bernreuter Personality Inventory scales, together with a small special questionnaire, were distributed through organizations for the hard of hearing. The results are based on the 43% (225) returns from these persons and the 28% (148) returns from the control group (normal hearing friends of the hard of hearing). About 88% of the groups were women. The hard of hearing are more emotional, more introverted, and less dominant than the control, but there is a large overlapping of the distributions. Sixteen items of special differentiating significance are given. Correlations between the inventory score and factors such as number of years deaf, age at loss of hearing, etc. are all small. The bibliography contains 54 titles.—*J. M. Stalnaker* (Chicago).

1909. **Weyer, J. Ist die Wünschelrute ein Mittel oder ein Zaubermittel?** (Is the divining rod a tool or a talisman?) (12th ed.) Bergholz-Rehbrücke: Selbstverl., 1932. Pp. 24. M. O. 40.—*R. R. Willoughby* (Clark).

1910. **Winkel, L. Wesen und Bedeutung der therapeutischen Hypnose speciell bei Psychosen.** (The nature and significance of therapeutic hypnosis, especially in psychoses.) Bonn: Kubens, 1931. Pp. 38.—(Not seen).

1911. **Winterstein, A. Beiträge zum Problem des Humors.** (Contributions to the problem of humor.) *Psychoanal. Bewegung*, 1932, **4**, 513–525.—The author reviews the contribution of Freud to the understanding of humor. He sees several causes leading to the trait, both sadistic and masochistic in nature. Humor is a male characteristic, and has as an aim the effort to maintain the endangered ego. The analyses of Reik and of Freud are compared, and quotations are given from other analysts. The humorous type is described, an analysis of accompanying character traits given, and its relation to pathological cases discussed. A bibliography accompanies the article.—*A. B. Herrig* (Michigan Central State Teachers College).

1912. **Wirth, W. Über sexuelle Frühreife.** (On sexual precocity.) *Zsch. f. Konstitutionslehre*, Abt. II, 1931, **15**, H. 4.—*W. S. Hunter* (Clark).

[See also abstracts 1678, 1728, 1742, 1797, 1825, 1854, 1923, 1954, 1995, 2017, 2080, 2138, 2158, 2159.]

NERVOUS AND MENTAL DISORDERS

1913. **Aldrich, C. G. Incentive as a factor in problem-solving among idiots.** *Tr. School Bull.*, 1930, **27**, No. 8.—*W. S. Hunter* (Clark).

1914. **Amrain, A. Contribution a l'étude de l'impuissance sexuelle.** (Contribution to the study of sexual impotence.) Thèse de doctorat de Paris, 1932. Pp. 67.—Impotence is sometimes due originally to a psychic inhibition, a checking. The rôle of emotion in this checking is incontestable, and it is here that the notion of the conditioned reflex often enters: an inhibitory idea, or a painful or sad memory substitutes for a seductive and normally attractive image. These associations provoke by contrast a state of inhibitory spasm. A small bibliography.—*Math. H. Piéron* (Sorbonne).

1915. **[Anon.] Mental deficiency.** *Nature*, 1932, **129**, 287–288.—A short report of papers read by E. O. Lewis, F. A. E. Crew, F. C. Shrubsall, and R. G. Gordon. On the social aspect of the problem, the genetic background, the incidence of types, and experimental findings at the centenary meeting of Section J of the British Association.—*E. H. Kemp* (Clark).

1916. **Boenheim, K. Die Bedeutung somatischer Behandlungsmethoden im Kindesalter.** (The significance of somatic methods of treatment in childhood.) *Ber. VI allg. ärztl. Kong. Psychotherap.*, 1931, 108–113.—Childhood disturbances are frequently bound up with easily recognizable organ deficiencies, and in consequence lend themselves readily to purely somatic treatment. In such cases the specialist may confine his treatment to the symptom level, although complete understanding can be achieved only in terms of a depth psychology.—*R. B. MacLeod* (Cornell).

1917. **Boenheim, K. Kinderpsychotherapie in der Praxis.** (The practice of child psychotherapy.) Berlin: Springer, 1932. Pp. 136. RM. 9.00—The principal types of childhood disease are presented in systematic order, and the most important methods of treatment discussed. Although somatic factors are given primary emphasis in connection both with classification and with therapy, considerable space is devoted also to problems of neurosis and of mental deficiency. The book begins with a survey of contemporary points of view in child psychology and psychotherapy, and a bibliography is appended.—*R. B. MacLeod* (Cornell).

1918. **Campbell, K. J. The relation of the types of physique to the types of mental diseases.** *J. Abn. & Soc. Psychol.*, 1932, **27**, 147–151.—This study was made to verify Kretschmer's generalization that certain types of physique were related to certain types of mental diseases. Over 1200 patients were examined, both for weight and height. In four out of six comparisons, the curves of the manics and the praecoxes were practically the same. The curve for weight in pounds showed that the male manics were on the average 10 pounds heavier than the male praecoxes. The curve for pounds per inch of height showed that the mode weighed .10 pound more per inch for the male manic, than for the male praecox; Kretschmer's difference was .30 pound per inch.—*C. H. Johnson* (Boston Psychopathic Hospital).

1919. **Claude, H. L'hystérie dans ses rapports avec divers états psychopathiques.** (Hysteria in its relationship to various psychopathic states.) *Encéph.*, 1932, **27**, 449–467.—The author believes that there is an advantage in bringing together the relevant groups of affections of the different mental forms of hysteria under the name of schizoses. It appears that there are common characteristics in these various schizoses: first the dissociation of functional activities, transitory or permanent, following each of these schizoses; then there are dynamic difficulties which bear upon the anatomical system, engendering functional modifications which are more or less permanent. Besides these similar characteristics, there are differences which show clearly that between these schizoses there is a question of different morbid types. The external appearance is the same, but the basis of the psychological tendencies is entirely different. It is necessary to seek the origin of these phenomena in complexes, especially of infantile origin, and to encourage overt expression of these more or less subconscious states which have created these symptoms.—*Math. H. Piéron* (Sorbonne).

1920. **Claude, H., & Ey, H. Evolution des idées sur l'hallucination. Position actuelle du problème.** (The evolution of ideas on hallucination. The present status of the problem.) *Encéph.*, 1932, **27**, 361–377.—The authors investigate how the primitive idea of hallucination, according to Esquirol "perception without object, characterized by the fact that an unreal object is perceived and thought to be real" has been expanded to the present conception in which it is no longer a perception at all. There has been a transition from a definition by objectivity without sensory foundation, to a definition by psychic objectivity. The authors wish to discover where pseudohallucinations begin, and to understand the conditions of the stages from hallucinosis (conscious hallucination) to true hallucination.—*Math. H. Piéron* (Sorbonne).

1921. **Claude, H., & Ey, H. Hallucinose et hallucination. Les théories neurologiques des phénomènes psycho-sensoriels.** (Hallucinosis and hallucination. The neurological theories of psychosensory phenomena.) *Encéph.*, 1932, **27**, 576–621.—Hallucination is a belief in the reality of an object which does not exist; hallucinosis is characterized by the presence in the field of consciousness of a sensation or of a form (complex, visual, auditory image, etc.) in which the subject has no faith. Hallucination implies an important disturbance of psychic and perceptive activity.—*Math. H. Piéron* (Sorbonne).

1922. **Culpin, M. Recent advances in the study of psychoneuroses.** Philadelphia: Blakiston, 1931. Pp. 348.—(Not seen).

1923. **Damaye, H. Les impulsions sexuelles des alcooliques.** (The sexual impulses of alcoholics.) *Prog. Med.*, 1932, No. 37, 1559–1560.—*Math. H. Piéron* (Sorbonne).

1924. **Dayton, N. A., Doering, C. R., Hilferty, M. M., Maher, H. C., & Dolan, H. H. Mortality and expectation of life in mental deficiency in Massachu-**

setts; analysis of the fourteen-year period 1917–1930. *N. Eng. J. Med.*, 1932, **206**, 555–570; 616–631.—An analysis based on a study of 8,976 cases of mental deficiency and 878 deaths.—*D. Shakow* (Worcester State Hospital).

1925. **Diamond, J. S. Gastrointestinal neuroses and their management.** *Med. J. & Rec.*, 1931, **134**, 476–481.—The following classification of neuroses is offered: mental anorexia, gastric obsession, pseudogastropathy, dilatation of the stomach (myasthenia gastrica or aerophagia), food prejudices with vomiting, and a variety of intestinal manifestations of an obsessional nature. The somatic characteristics of patients are enumerated. Treatment is discussed under five headings, as follows: psychotherapy, rest and relaxation, diet, physiotherapy, and drugs.—*R. C. Givler* (Tufts).

1926. **Donalls, G. Katatoniformer Stupor hysterischer Genese.** (Stupors of catatonic form of hysterical origin.) *Nervenarzt*, 1931, **4**, 647–652.—A discussion of two cases, the symptoms of which suggested catatonic stupor, but which were really of hysterical origin.—*R. B. MacLeod* (Cornell).

1927. **Fourche, J. Adaptation du medecin aux colonies.** (The adaptation of the colonial physician.) *Rev. de psychol. appl.*, 1932, **2**, 109–125.—*E. H. Kemp* (Clark).

1928. **Gartner, P. Die Tiefenpsychologie der Suggestivbehandlungsmethoden und die inhaltliche Revision des Suggestionsbegriffes.** (The depth psychology of suggestive methods of treatment and the revision of the content of the concept of suggestion.) *Ber. VI allg. ärztl. Kong. Psychotherap.*, 1931, 239–245.—Discussion of the significance of suggestive therapy for the general theory of suggestion.—*R. B. MacLeod* (Cornell).

1929. **Gaupp, L. Rückblick auf Führungen in der Abteilung des Deutschen Bandes für psychische Hygiene auf der Internationalen Hygiene-Ausstellung Dresden 1930 und 1931.** (Review of the activities in the German society for mental hygiene in the international hygiene exposition, Dresden, 1930 and 1931.) *Zsch. f. psych. Hygiene*, 1932, **5**, 163–167.—A discussion of the validity of the charts, drawings, and models exhibited to illustrate aspects and types of mental disease.—*M. N. Hulin* (Princeton, N. J.).

1930. **Gerzberg, R.** [**Occupational therapy.**] *Sovietskaya nevropatol., psikhiat., i psikhonevrol.*, 1932, **1**, 287–294.—The necessity of working out a method of occupational therapy in the U. S. S. R. is determined by the reconstruction of hospitals for mental disease. The method of psychiatric work is also changed; instead of trying to obtain a contact with a patient who does not work and presents symptoms of disease, the observation is made in the social process of work.—*A. Yarmolenko* (Leningrad).

1931. **Gilula, T. O.** [**The professional value of epileptics.**] *Sovietskaya nevropatol., psikhonevrol., psikhohig.* (Moscow), 1932, **1**, No. 3, 36–41.—Three-fourths of the pensioned epileptics were working, their productiveness depending upon the conditions of work. Epileptics at work do not grow worse. Only those with extreme dementia and definite emotional disorders need be confined.—*A. Yarmolenko* (Leningrad).

1932. **Göransson, E. Svenska föreningens för psykisk hälsovård småskrifter.** (Booklets of the Swedish Association for Mental Hygiene.) *Svensk. läkart.*, 1933, **30**, 2–9.—A national association for mental hygiene was established in Sweden in November, 1931, with much the same program as the American society. Three popular booklets have so far been published: (1) *Mental Hygiene, a Socially Neglected Problem;* (2) *Means and Ends of Mental Hygiene;* (3) *The Psychopathic Child, the Physician and the Teacher.*—*M. L. Reymert* (Mooseheart Laboratory for Child Research).

1933. **Grimes, E. The migraine instability.** *Med. J. & Rec.*, 1931, **134**, 417–422.—"Migraine is a recurring paroxysmal sensory disturbance conditioned upon an inherent instability of the nervous system which reacts to various types of stress in a specific manner—the migraine paroxysm." "When the instability is high, physiological stress will provoke a paroxysm, and when the instability is slight, a pathological stress is necessary to produce it." The outstanding feature is its characteristic periodicity, which is definite for each individual, occurring as often as three times a week, or as seldom as three times a year. Hysterical seizures of the exhaustion type frequently take its place. Headache, ocular disturbances, and nausea are the classical triad of accompanying sensory disturbances, but pain in the abdomen and parasthesias, with or without motor disturbances, are commonly present as well. The basic instability, whether of the slightest or the maximum degree, is an inherited, family trait. "The time of onset is determined by the degree of instability; the greater the susceptibility, the earlier in life is the condition manifest." From an examination and treatment of 1200 cases, it is deduced that whatever relief is possible must be sought from an extremely wide range of therapies, since "the removal of the pathological condition will give no relief when the stress is physiological." Successful treatment consists in modifying or eradicating the stress.—*R. C. Givler* (Tufts).

1934. **Hattingberg, H. v. Das Atemkorsett.** (The "breathing corset.") *Ber. VI allg. ärztl. Kong. Psychotherap.*, 1931, 129–134.—*R. B. MacLeod* (Cornell).

1935. **Hoche, A. E. Ist die Hysterie wirklich entlarvt?** (Is hysteria really unmasked?) *Dtsch. med. Woch.*, 1932, No. 1, 1–3.—Many open questions remain in connection with hysteria, and these cannot be answered by the mere relegation of the topic to the chapter on the diagnosis of the results of accidents.—*R. B. MacLeod* (Cornell).

1936. **Hoffer, —, Angles, —, & Leopold-Levy, —. La rééducation des déficients psychiques et des retardés scolaires.** (The reëducation of the mentally deficient and the scholastically retarded.) Paris: Doin, 1932. Pp. 234. Fr. 30.00.—After clearly defining the problem of deficiency and showing the

importance of finding young defectives, the authors show how, by means of tests, they may be discovered. They explain the scales of Binet and Simon, the tests of Kuhlmann for little children, and the profiles of Rossolimo, Vermeylen, Piéron, Lasoursky, Decroly, and Naville. Reviewing the usual causes of mental deficiency and their pathogenesis, they classify mental deficiencies and show how to undertake their psychopedagogic reëducation. Finally, they show how, in France, the reëducation of young mental deficients has been practically organized. A bibliography of 80 titles.—*Math. H. Piéron* (Sorbonne).

1937. **Jung, C. G. Die praktische Verwendbarkeit der Traumanalysen in der Psychotherapie.** (The practical applicability of dream analysis in psychotherapy.) *Ber. VI allg. ärztl. Kong. Psychotherap.*, 1931, 136–142.—A general discussion of Jung's point of view, with special reference to its application in practice.—*R. B. MacLeod* (Cornell).

1938. **Kürbitz, W., & Lange, W. Der gegenwärtige Stand der Enzephalitikerfürsorge in Deutschland.** (The present status of the care of encephalitics in Germany.) *Zsch. f. psych. Hygiene*, 1932, **5**, 167–178.—Encephalitis is more common since the war. Reasons and recommendations are given for the segregation of those afflicted. Bibliography of 28 references.—*M. N. Hulin* (Princeton, N. J.).

1939. **Laird, D. A., Levitan, M., & Wilson, V. A. Nervousness in school children as related to hunger and diet.** *Med. J. & Rec.*, 1931, **134**, 494–499.—Report of an experiment on 53 children who tested high in nervousness according to the Olson Behavior Check List, to show that "hunger (with calcium deficiency) in the broad sense is a cause of neurosis." A check squad was employed to test the results. Special feedings of milk or of a food concentrate between breakfast and lunch to offset hunger pangs and build up calcium metabolism brought a net improvement in the test for nervousness in all but 15% of the children.—*R. C. Givler* (Tufts).

1940. **Last, S. L., & Vogelsang, K. Gutachten über einen Fall von psychogener Blindheit.** (Diagnosis of a case of psychogenic blindness.) *Nervenarzt*, 1931, **4**, 645–647.—*R. B. MacLeod* (Cornell).

1941. **Leopold-Levy, —. Nervosisme et glandes endocrines.** (Nervousness and endocrine glands.) Paris: Editions de l'esprit médical, 1931. Pp. 160. Fr. 18.00.—The author shows the frequent subordination of nervousness to disturbances of the endocrine glands.—*Math. H. Piéron* (Sorbonne).

1942. **Lhermitte, J. L'hallucinose pedonculaire.** (Peduncular hallucinosis.) *Encéph.*, 1932, **27**, 422–435.—The author means by this term the hallucinatory symptoms displayed by patients with lesions limited to the ventral region of the third ventricle and the peduncular process which is the posterior prolongation of it. By its clinical characteristics peduncular hallucinosis is directly connected with dream activity. From the psychological point of view the characteristics of patients suffering from hallucinosis are: lack of interest in the present situation; relaxation of attention and of the critical faculty; dispersion of ideas; tendency to invention; weakening of the sense of reality, and of interest in life. All these modifications of the mind, which cut off personal characteristics from the vigilance of consciousness, are precisely the characteristic traits of the hypnotic state. The sufferer from peduncular hallucinosis is an awakened dreamer, or one who has not slept enough; a subject whose hypnotic function has been profoundly upset, and has been dissociated by the caprice of an anatomical disorganization. A short bibliography terminates this critical review.—*Math. H. Piéron* (Sorbonne).

1943. **Mirabella, E. L'uomo de la lunga treccia e de le unghie di 25 centimetri.** (The man with long hair and with nails 25 centimeters long.) *Arch. di antrop.*, 1931, **51**, 626–634.—A case of mental disequilibrium aggravated by unreciprocated love. The patient, an eccentric, mentally unbalanced individual, son of an alcoholic father and hysterical mother, picked up one day his sweetheart's comb, which he treasured as a fetish. He let his hair grow long in order to comb it with his fetish and refrained from cutting the nails with which he had picked up the comb.—*R. E. Schwarz* (V. A. Hospital, Northport, L. I.).

1944. **Mohr, F. Die direkte Verständigung mit dem Unbewussten durch Träume und andere Symbole.** (The achievement of a direct understanding of the unconscious through the medium of dreams and other symbols.) *Ber. VI allg. ärztl. Kong. Psychotherap.*, 1931, 179–186.—Description of methods of avoiding rational analysis in the treatment of children and unsophisticated patients.—*R. B. MacLeod* (Cornell).

1945. **Morel, F. Les hallucinations monoculaires du delirium tremens.** (The monocular hallucinations of delirium tremens.) *Encéph.*, 1932, **27**, 378.—A study of the visual hallucinations of 24 patients.—*Math. H. Piéron* (Sorbonne).

1946. **Mourgue, R. Neurobiologie de l'hallucination.** (Neurobiology of hallucination.) Brussels: Lamertin, 1932. Pp. 416.—(Not seen).

1947. **Neuberger, D. Comment diagnostiquer, comment traiter les maladies mentales.** (How to diagnose and to treat mental diseases.) Paris: Maloine, 1932. Pp. 424. Fr. 40.00.—The book was written from the point of view of keeping for true psychiatry its bio-psychological destination. Full bibliography.—*Math. H. Piéron* (Sorbonne).

1948. **Pantalone, E. Sulla necessità di un più attivo orientamento verso la terapia generalizzata del lavoro.** (On the necessity of a more active orientation toward general therapy of work.) *Riv. di psicol.*, 1932, **28**, 220–227.—*T. M. Abel* (Sarah Lawrence).

1949. **Pascal, C. Chagrins d'amour et psychoses.** (The sorrows of love and psychoses.) *Prog. med.*, 1932, No. 36, 1513–1524.—The author reviews the psychoses and the crimes committed because of repression. In order to make clear the relationship between the sorrows of love and the psychoses, the

author first discusses the biology of the emotions and passions, and observes that pathogenic emotion is to mental life what antigens are to the organism. Pathogenic emotion is the dissociation of the chains which create the emotion. The author has isolated three steps in pathogenic emotion: (1) the predominantly mental cycle, which determines the phenomenon of sensitivation, a phenomenon of emotional hyperamnesia; (2) the predominantly motor-physiological cycle, which determines the objective syndrome of hyperemotivity, and (3) the humoral neuro-vegetative cycle, which is the hemoclastic shock. The author gives a fundamental law of emotion which makes it possible to understand the pathogenic action of repression. It is the law of motor discharge and vegetative refraction which corresponds to the law of repression and realization, of inversion and externalization. The author then explains the psychosis of desire, or *folie ménagère* of Renan, sinistrosis or conjugal colloidoclasia, and the psychosis of disgust.—*Math. H. Piéron* (Sorbonne).

1950. **Rabinovich, J. S.** [**Heredity and constitution in the families of epileptics.**] *Sovietskaya nevropatol., psikhiat., i psikhonevrol.*, 1932, No. 1–2, 42–53.—The constitution of the families of epileptics is generally athletic, and infantile and mixed types are often found. Dysplastic symptoms are frequently found, which illustrates the rôle of genetic factors in epilepsy.—*A. Yarmolenko* (Leningrad).

1951. **Rauch, M. Ueber funktionelle Taubheit.** (On functional deafness.) *Wien. med. Woch.*, 1931, No. 48, 1538–1540.—Discussion of a case of hysterical deafness following upon severe fright.—*R. B. MacLeod* (Cornell).

1952. **Rieti, E. Nuovo contributo allo studio delle disposizioni eidetiche visive nei malati di mente.** (New contribution to the study of the eidetic visual disposition in the mentally deranged.) *Arch. ital. di psicol.*, 1932, **10**, 112–117.—The author performed experiments on mentally deranged subjects who possessed aptitudes for visual imagery, using Kiesow's color test. He found that the aptitude for colored visual imagery does not necessarily go together with the achromatic visual aptitude.—*R. E. Schwarz* (V. A. Hospital, Northport, L. I.).

1953. **Rodewald, —. Die Frühentlassung der Schizophrenen.** (The premature discharge of schizophrenics.) *Zsch f. psych. Hygiene*, 1932, **5**, 183–184.—Sterilization is recommended for unsupervised schizophrenics.—*M. N. Hulin* (Princeton, N. J.).

1954. **Roger, H. Les troubles du sommeil: hypersomnies, insomnies, parasomnies.** (Disturbances of sleep: hypersomnia, insomnia, and parasomnia.) Paris: Masson, 1932. Pp. 206. Fr. 20.—*Math. H. Piéron* (Sorbonne).

1955. **Rosenheck, C. Neurological aspects of poliomyelitis.** *Med. J. & Rec.*, 1931, **134**, 491–493.—A discussion of the chief differences between the preparalytic phenomena in the 1916 and 1931 epidemics of anterior poliomyelitis (infantile paralysis). Patients often recover without treatment of any sort, but not when ganglion cell deterioration has occurred.—*R. C. Givler* (Tufts).

1956. **Sacristan, J. M., & Germain, J. Völkerpsychiatrie und psychische Hygiene.** (Folk psychiatry and mental hygiene.) *Zsch. f. psych. Hygiene*, 1932, **5**, 161–163.—A statement of the survey made by Kraepelin, before his death, of the characteristic racial types of mental disease found in Mexico and Java.—*M. N. Hulin* (Princeton, N. J.).

1957. **Strömme, J. Nervösitet kan helbredes.** (Nervousness can be cured.) Oslo: Fabritius & Sönners Forlag, 1932. Pp. 318.—A theoretical and practical exposition of the author's points of view regarding nervous diseases and their treatment, illustrated throughout with cases from his medical practice. The various chapter headings are: nervous diseases, influence of inheritance and environment, the mind, dream life, the psychoanalytical method, relational causations, special symptoms, sex life, religion, and happiness. An appendix of definitions of technical terms concludes the book.—*M. L. Reymert* (Mooseheart Laboratory for Child Research).

1958. **Susmann-Galant, J. Sulla gravidanza immaginaria.** (Imaginary pregnancy.) *Arch. di antrop.*, 1931, **51**, 635–638.—The author criticizes Redlich's *Contribution to the Study of Nervous Pregnancy*, and adduces additional evidence to prove his own views on imaginary pregnancy, which were set forth in a monograph published in Berlin in 1928. According to him, imaginary pregnancy is a true psychoneurosis, and should be treated as such.—*R. E. Schwarz* (V. A. Hospital, Northport, L. I.).

1959. **Wengraf, F. Behandlung von organneurotischen Störungen des weiblichen Genitales.** (The treatment of organ-neurotic troubles in the female genitals.) *Ber. VI allg. ärztl. Kong. Psychotherap.*, 1931, 119–125.—Discussion of four successfully treated cases of menstrual difficulty, all of psychical origin and all cured by psychotherapeutic methods.—*R. B. MacLeod* (Cornell).

1960. **Williams, E. H. The insanity plea.** Baltimore: Williams & Wilkins, 1931. Pp. 175. $2.00.—(Not seen).

1961. **Williams, T. A. The common principle in differing psychotherapeutics.** *J. Abn. & Soc. Pyschol.*, 1932, **27**, 105–110.—The common principle immanent in all psychotherapeutic procedures is merely the changing of the patient's mental attitude towards what disturbs him to the point of neurotic behavior. The object of treatment is not merely to side-track an unpleasant thought or emotion, but to re-educate the patient's tendencies in a fruitful direction which will preclude reactions of disquieting or hurtful kinds. The process can be most satisfactorily accomplished only when the practitioner has analyzed the psychic factors which enter into the disturbance so as to have an understanding of the mental processes with which he will have to deal in reconstructing the patient's reactions to the surroundings which have initiated or are maintaining his psychosis.—*C. H. Johnson* (Boston Psychopathic Hospital).

1962. **Wilson, I. G. H. Psychology in general nursing.** New York: Longmans, 1931. Pp. 224. $1.60.—(Not seen).

1963. **Young, K. Changing attitudes in social work: mental hygiene, social psychology, and social service.** *Ment. Health Observer*, 1933, 1, 7–8.—The author traces the change in the notions and practices of social work by which it has to a certain extent thrown off the domination of early ideas. Contributions of mental hygiene, psychiatry, and social psychology are credited with having assisted the progress of social work away from an over-emphasis on material relief. Psychiatry, through psychoanalysis, has shown the power of unconscious motives in behavior and the symbolic nature of much behavior, and how these are in a large part the product of early social conditioning. An understanding of the mechanisms of over-compensation, inferiority, identification, and projection is necessary in dealing with many of the cases met in social work. Contributions of social psychology and mental hygiene are analyzed. The author emphasizes the importance of the principles of expectancy and anticipation and points out the increased importance of these in a time of economic stress.—*P. Seckler* (Clark).

[See also abstracts 1704, 1860, 1910, 1973, 2039, 2087.]

SOCIAL FUNCTIONS OF THE INDIVIDUAL

1964. **Altavilla, E. Psicologia giudiziaria.** (Legal psychology.) (2nd ed.) Torino: Unione Tipografico-Editrice Torinese, 1929. Pp. 671.—This textbook of legal psychology is a guide to the interpretation of psychology in relation to the professional duties of judges and lawyers. The first part of the book, "The psychological process and the legal truth," contains a number of theoretical points, especially Freud's pleasure principle and the association method. The second part is entitled "The actors in the penal procedure."—*R. E. Schwarz* (V. A. Hospital, Northport, L. I.).

1965. **Antonini, G., & Corberi, G. Osservazioni su minori inquisiti o di condotta irregolare.** (Observations on juvenile delinquents or children of irregular conduct.) *Riv. di psicol.*, 1932, **28**, 85–102.—Among 220 juvenile delinquents, 44% were found to have some pathology of nervous function or of mental ability. Among 8% there was a significant character aberration. 70% came from illegitimate or broken homes. Social factors appear to be the determining cause of crime among the delinquents under consideration, although in about one-half of the cases there is an additional biological causative factor.—*T. M. Abel* (Sarah Lawrence).

1966. **Bernard, L. L. Social psychology in the United States.** *Sociologus*, 1932, **8**, 257–280.—The author traces the development of social psychology from its starting point as a unified discipline about 1880 to the present day. The contributions of the leading men in the field are set forth. The gradual change in social psychology from its early purely speculative character to its present status with facts and laws based on experimental methods is emphasized.—*E. Fehrer* (Bryn Mawr).

1967. **Binnewies, W. G. The need for quantitative techniques in sociology.** *Sociol. & Soc. Res.*, 1932, **16**, 558–561.—*J. R. Hilgard* (Yale).

1968. **Bogardus, E. S. Social distance between Catholics, Jews, and Protestants.** *Sociol. & Soc. Res.*, 1932, **17**, 167–173.—This study reports the discussions of liberal Catholics, reformed Jews, and modernist Protestants upon certain major problems: the ideas and practices held or done in common by the three denominations, the main divisive factors separating liberal-minded members, and finally the factors operating today to diminish religious distance and to promote nearness between Catholics, Jews, and Protestants.—*J. R. Hilgard* (Yale).

1969. **Bondy, H. Sexueller Infantilismus und seine Beziehung zur Kriminalität.** (Sexual infantilism and its bearing on criminality.) *Prakt. lék.*, 1932, No. 6, 156–160.—Discussion of a case of sexual infantilism and of the place of such individuals in society.—*R. B. MacLeod* (Cornell).

1970. **Bossert, T. Die psychologischen Probleme der Sicherungsvoraussetzungen im 8. Abschnitt des Entwurfs eines Allgemeinen Deutschen Strafgesetzbuchs 1927.** (The psychological problems of the safety presuppositions in Section 8 of the outline for a comprehensive German Penal Code, 1927.) Berlin: Funk, 1932. Pp. 72.—*R. R. Willoughby* (Clark).

1971. **Bührig, W. Noten- oder Buchstabenschrift.** (The writing of musical notes or of letters.) *Psychol. Rundschau*, 1933, **4**, 222.—Just as one takes on a characteristic self-expression in handwriting, so too one may be recognized through his drawings or paintings and in his writing of musical scores. An illustration is given from Beethoven's scores and his writing.—*A. B. Herrig* (Michigan Central State Teachers College).

1972. **Case, C. M. Beyond civilization.** *Sociol. & Soc. Res.*, 1932, **17**, 117–136.—A method by means of which we can guide our course beyond the present civilization into enlightenment and a true collectivism is outlined in the creation of a National Council on Social Goals and Welfare. This council would determine the objects of social striving and make it mandatory upon legislatures to carry out the decisions of such a body through statutes.—*J. R. Hilgard* (Yale).

1973. **Christie, T. The psychology of crime. III. The elements of persecution.** *Brit. J. Med. Psychol.*, 1932, **12**, 257–263.—The delusional condition may be minimum, medium, or maximum, depending chiefly on the degree of insight which the individual has into his condition. The cases are cited of two young criminals with ideas of persecution.—*E. R. Hilgard* (Yale).

1974. **Daniel, R. P. A psychological study of delinquent and non-delinquent negro boys.** *Teach. Coll. Contrib. Educ.*, 1932, No. 546. Pp. vi + 59.—To three groups of negro boys (100 boys in a reform

school, 80 behavior-problem boys in a public school, 120 non-problem boys in a public school) seven tests were administered: Haggerty intelligence, delta II; Mathews questionnaire; character sketches I and II (Maller); Sweet's personal attitudes test for younger boys; ethical judgment test; Maller test of sports and hobbies (trustworthiness). The groups were all from the 5th grade, age varying from 9 to 16; IQ averages 75, 86, and 94 respectively. Significant differences between the groups were found with the trustworthiness test, Mathews questionnaire, and the character sketches. "Data show that delinquents differ from non-delinquents . . . chiefly in degree rather than kind." The bibliography contains 46 titles.—*J. M. Stalnaker* (Chicago).

1975. **Dénes, L. Diagnostik und Therapie der funktionellen Stimm- und Sprachstörungen mit Ausschaltung des Gehörs.** (Diagnosis and treatment of functional disturbances of voice and speech by elimination of hearing.) *Monatssch. f. Ohrenhk.*, 1932, **66**, 1325–1330.—Dénes' work is based on Bárány's "reading test" for deafness. One's own voice is perceived in a different manner from that of others, due to the stronger bone conduction, endogenous vibration through the skull and chest, and kinesthetic sensations from the larynx. To exclude hearing one's own voice, these factors, in addition to air conduction, must be eliminated. For this purpose, Dénes uses the pneumo-vibratory massage apparatus of aural practice. The machine is turned on while the patient is reading aloud. The proof of elimination of hearing is loss of control of the dynamic strength of the voice. If the voice becomes stronger after elimination of hearing, the disturbance is functional. In these conditions, the total functions of the larynx are disturbed, and the most striking feature of the test is that, after hearing is cut out, the laryngeal movements become normal instantaneously. The method has proved valuable for the diagnosis and treatment of functional disturbances of the voice and speech. Dénes has used it in hysterical aphonia, voice disturbances which because of auto-imitation persist after removal of the cause, phonasthenia, and stuttering.—*M. E. Morse* (Hyattsville, Md.).

1976. **Dewar, L., & Hudson, C. E. Psychology for religious workers.** New York: Long & Smith, 1932. Pp. 238. $2.00.—(Not seen).

1977. **Di Tullio, B. A proposito della classificazione dei delinquenti.** (Concerning the classification of delinquents.) *Arch. di antrop.*, 1930, **50**, Suppl. to Fasc. 6.—*W. S. Hunter* (Clark).

1978. **Droba, D. D. Churches and war attitudes.** *Sociol. & Soc. Res.*, 1932, **16**, 547–552.—By means of an attitude test constructed by the writer, 1000 students belonging to various denominations were tested and their records studied with respect to war attitudes. Lutherans and Catholics were most militaristic; the most pacifistic were "Protestants" who did not specify any denomination. In general the more conservative a church is the more militaristic it will tend to be, and the more liberal a church is the more pacifistic it will profess to be.—*J. R. Hilgard* (Yale).

1979. **Droba, D. D. Education and negro attitudes.** *Sociol. & Soc. Res.*, 1932, **17**, 137–141.—Students at Ohio State University were tested at the beginning and again at the end of a course on the negro to see whether there had been any appreciable change of attitude. Retests of the thirty students showed a slightly more favorable attitude toward the negro, with increased variability of response. In a similar experiment to measure the effect of general education on attitudes, scores were compared for successive educational classes, with the conclusion that students become more favorably inclined as they ascend the educational scale. Again variability increased as the attitudes became more favorable.—*J. R. Hilgard* (Yale).

1980. **Droba, D. D. Why war?** *World Unity*, 1933, **11**, 264–271.—A discussion of the apparent and fundamental causes of war. War is defined as a method of solving conflicts or states of tension between nations. The apparent or surface causes of war are over-population, economic gain, and extreme patriotism. These, however, are the causes of *conflict*, while the true, fundamental causes of *war* are attitudes. By means of a test designed by the author the attitudes toward war of 1400 University of Chicago students was determined. Several facts were determined about each student whose attitude toward war was shown by the test. It was found that such factors as education of parents, occupation of father, economic status, intelligence, degree of nervousness, and employment status have no direct association with the war attitudes of students. Age, war service, and scholarship have a slight influence on war attitudes. The older the student, the less war service he has had, and the greater the degree of his scholarship, the less favorable is his attitude toward war. It was further found that women are more opposed to war then men; Lutherans and Catholics are more militaristic than other denominations; students whose parents were both of non-American birth object more strongly to war than those of American parentage; students of the Socialist party are more opposed to war than Republicans or Democrats; and students of the natural sciences are more militaristic than those of the social sciences. The institutions of education, marriage and the church, which are the great molders of attitudes, are at present producing favorable attitudes toward war. Thus war is today recognized as a lawful institution.—*C. C. Neet* (Clark).

1981. **Eccles, A. M. The performance of delinquent boys on the Healy Completion Test II.** *Tr. School Bull.*, 1931, **28**, No. 4.—*W. S. Hunter* (Clark).

1982. **Evans-Pritchard, E. E. Heredity and gestation as the Azande see them.** *Sociologus*, 1932, **8**, 400–414.—The author describes the concepts of a central African tribe concerning the heredity and embryonic development of children, the respective part played in this process by mother, father and a divine being, and the social status and duties of the parents during and after the period of pregnancy.—*E. Fehrer* (Bryn Mawr).

1983. **Field, H. E. The psychology of crime. II. The place of psychology in the treatment of delinquents.** *Brit. J. Med. Psychol.*, 1932, **12**, 241–256.—Limitations and difficulties are considered, but a case is made for the inclusion of psychotherapy among the treatment devices provided by institutions and systems for dealing with delinquents. 21 references.—*E. R. Hilgard* (Yale).

1984. **Foerster, J. F. v. Karten des Alters- und Berufsaufbaues des deutschen Volkes.** (Occupation-age charts of the German population.) *Indus. Psychotechn.*, 1932, **9**, 344–348.—The author arranged the statistics on the distribution of the different occupations of the German people into an occupation-age chart for men and women. In this he shows the percentage of the population which is engaged in each of the different occupations, such as pre-school activity and public-school work, non-working single men, lodging- and boarding-house keepers, women students, industrial workers, tradesmen and administrators, free vocations, health administrators, and finally farmers. The diagram is divided into progressive levels of five years each, from the first to the seventy-first year of age.—*C. Burri* (Chicago).

1985. **Franklin, P. E. The negro family in Chicago.** Chicago: Univ. Chicago Press, 1932. Pp. 310. $3.00—(Not seen).

1986. **Franzen-Hellersberg, L. Die jugendliche Arbeiterin, ihre Arbeitsweise und Lebensformen.** (The youthful working girl, her work and her manner of living.) Tübingen: Mohr, 1932. Pp. 144. RM. 6.00.—Since the appearance of the works of E. Spranger and C. Bühler, the psychology of youth has become popular. However, a psychology of the work of children is still lacking. Such a work is possible only if one considers the conditions under which children of the working class grow up and the conditions under which they begin work at the age of fourteen. Without such a sociological foundation, a psychology of this type is inconceivable. The young working girl responds to the severity of her labor and the raggedness of her personal condition with real attempts at adjustment. The typical conflicts result from this situation, which many people do not understand. A closer examination shows an entirely different picture from that usually thought of. One should not judge the character of these individuals from a single impression, but should try to survey the life of the working girl as a whole. The author has attempted to make use of the largest possible number of occasions for observation of these individuals in factories, in the quarters of the working classes, in their places of amusement, and in settlement houses. The methods of study, therefore, are of many types, but the goal was to bring this material into a complete and unified picture. The findings show that the working girl is a necessary, although tragic, product of very difficult conditions. Sometimes, however, the strength of her spirit develops her into a thoroughly pure, but also highly primitive existence. The appendix contains documentary proof which is selected from the material used in the book.—*L. Franzen-Hellersberg.*

1987. **Glover, E. The psychology of crime. V.** *Brit. J. Med. Psychol.*, 1932, **12**, 270–272.—The author urges the study of the sociology of the first five years of life. Criminology must not omit studying the psychology of the criminologist.—*E. R. Hilgard* (Yale).

1988. **Good, T. S. The psychology of crime. I.** *Brit. J. Med. Psychol.*, 1932, **12**, 234–240.—A discussion of criminals who are (1) mentally defective, (2) morally defective, or (3) super-normal. The author has had experience with cases of (1) and (2), but the treatment of (3) is entirely speculative. No references.—*E. R. Hilgard* (Yale).

1989. **Herbertz, R. Psychologische Persönlichkeitsforschung im Dienst der Verbrechensbekämpfung in Amerika und bei uns.** (Psychological research in personality in relation to the suppression of crime in America and with us.) *Psychol. Rundschau*, 1933, **4**, 210–213.—The author comments on the crime wave in America and the newspaper and film publicity given to it in Europe. He cites the statement made by Gordon L. Hostetter at the National Conference on Government that ten to thirteen million dollars is the annual cost of crime in America. The author suggests a psychological personality survey beginning in childhood and carried through youth as a preventive to future crime. He sees in this suggestion a possibility for Germany in dealing with her growing problem.—*A. B. Herrig* (Michigan Central State Teachers College).

1990. **Heuyer, G., Serin, —, Horinson, —, & Baille, —. L'orientation professionnelle des jeunes délinquantes.** (Vocational guidance of young delinquents.) *Hygiène ment.*, 1932, **27**, 35–40.—A satisfactory discussion of vocational guidance of young delinquents, permitting the hope that with well chosen guidance the number of actually unassimilable children will diminish, and that there will be more and more success in the readaptation of delinquent children.—*Math. H. Piéron* (Sorbonne).

1991. **Hutton, I. E. The sex technique in marriage.** New York: Emerson, 1932. Pp. xx + 156. $2.00.—The first American edition of the third English edition, introduced by Ira S. Wile. Chapters on preparation for marriage; the first sex act; the sex organs; sex life during marriage; menstruation and the "change of life"; curable childlessness; and birth control.—*O. L. Harvey* (Boston, Mass.).

1992. **Israeli, N. The social psychology of time.** *J. Abn. & Soc. Psychol.*, 1932, **27**, 209–213.—The purpose of the two experiments was to study orientation to the passage of time. In experiment I, intellectual judgments were made by 607 subjects on the importance of the different time divisions, all of which were compared with one another. The present was regarded as 1.2 times as important as the future, and 12.7 times as important as the past. In experiment II, it was found that the past is hardly important in the emotional time behavior of the subjects: while

only 13% worry much about their own past misfortunes, 94.5% are hopeful about their own future; 67.4% worry about present problems, 56.3% daydream about things that are going to happen, and 89.3% often shape their plans in advance.—*C. H. Johnson* (Boston Psychopathic Hospital).

1993. **Jaspers, K. Die geistige Situation der Zeit.** (The mental condition of the time.) Leipzig: Gruyter, 1931. Pp. 191. RM. 1.80.—The author of the *Psychologie der Weltanschauungen* uses a similar method of attack on sociology and its metaphysical problems in this book. We are in a movement which forces a change of existence with changes of knowledge, and accompanying this change of existence a new change of knowing consciousness (*wissenden Bewusstseins*). "Today there is a specific feeling of weakness here: man knows that he is fettered to the course of things, which he thinks he may possibly direct." The mind is a picture of the present condition of man, and hence his mental condition is related to that condition. The answers to the following questions show these conditions: How has the condition been considered previously? How has today's situation originated? What does this idea generally signify? In what aspect does the condition show itself? How will the question regarding the existence of humanity be answered? What does the future hold for man? The second part on the "borders of the order of existence," in our modern sophistry we would describe as the "language of veiling" (*Sprache der Verschleierung*). By this method it becomes all the more impossible to achieve rational truth. In the sixth section, entitled "What can man become," we find an answer to the question of the reality of time. The following citation shows how the author is compelled to resort to a language of irrationalism: "Was gegenwärtig wahres Sein ist, welches Sein als Dasein seine Reife des Scheiterns hat, welches noch Keim ist, wie beide der Grund einer Zukunft des Menschseins sind, ist so wenig wie das Sein des Sophisten einem Wissen zugänglich. Es bleibt in der Verborgenheit schweigt, auch wo sein Träger eine öffentliche Rolle spielt, wird sichtbar jedem Begegnenden, solange dieser selbst dem Sein offen ist, das er durch eigenes Selbst sein sieht."—*W. Wirth* (Leipzig).

1994. **Kelchner, M. Berliner Handwerksburschen und ihre Muttersprache.** (Berlin apprentices and their mother tongue.) *Sociologus*, 1932, **8**, 414–436.—This article consists of an analysis of the extent and variety of errors in the use of their mother tongue by Berlin apprentices, with an attempt to trace the cause of these errors, and a demonstration of the present need for improvement.—*E. Fehrer* (Bryn Mawr).

1995. **Künkel, F. Charakter, Liebe und Ehe.** (Character, love and marriage.) Leipzig: Hirzel, 1932. Pp. 179. RM 8.—The book attacks the problems named in its title from two sides. The first is a statement of love as a reciprocal relation between man and woman. This leads to a formulation of the "inner dialectic of the pair" in which it is shown that they constitute together a "we," yet are nevertheless independent beings in relation to each other. This interplay of unity and opposition is described as a case of polarity. In the second place the configuration of the pair (i. e., the happy or unhappy progression of the married state) is viewed as a kind of external dialectic or interplay between the "pair" and its environment. The pair is shaped by the influence upon it of law, custom, public opinion and especially of economic conditions, but it in turn acts upon these also and in doing so both sustains and modifies them. The present book thus constitutes a logical and methodological sequel to the author's *Character, Growth and Training* and prepares the way for his coming volume on *Character, the Individual and the Group.*—*F. Künkel* (Berlin).

1996. **Lacroix, P. History of prostitution; among all the peoples of the world from the most remote antiquity to the present day.** (2nd ed.) (Trans. by S. Putnam.) New York: Covici Friede, 1932. Pp. 1490, 2 vols. $12.50.—(Not seen).

1997. **Lake, G. B. Sex as service.** *Med. J. & Rec.*, 1932, **135**, 44–46.—This article propounds the question whether, merely as an avocational matter, "the woman who has the genius for love be denied the joy of exercising her talents for enriching the lives of those needy and sensitive hearts who come within her sphere of influence." Talent for love is distinguished from talent for marriage, and discussion centers about the possibility that an exercise of the former without the latter may be antisocial.—*R. C. Givler* (Tufts).

1998. **Lamson, H. D. Leadership in China.** *Sociol. & Soc. Res.*, 1932, **17**, 103–116.—The birthplace, age, occupation, and education of present-day leaders in China is obtained through an analysis of the biographical sketches in the fourth edition of *Who's Who in China*. 960 persons are included in this study, of whom 21 are women.—*J. R. Hilgard* (Yale).

1999. **Lévy-Valensi, J. Criminalité et passion amoureuse.** (Criminality and the passion of love.) *Hygiène ment.*, 1932, **27**, No. 7.—*Math. H. Piéron* (Sorbonne).

2000. **Lewerenz, A. S. Attitude differences of contrasting social groups.** *Sociol. & Soc. Res.*, 1932, **16**, 553–557.—An investigation into the mass attitudes of juvenile prisoners, adult prisoners, policemen, and "superior adults," using the questionnaire Orientation Test, which measures attitudes concerning health, education, use of leisure, ethical culture, and worthy home membership, revealed that the juvenile and adult prisoners as well as the policemen ranked as very inferior while the superior adults received a rating of superior. The author then attempts to discover the reasons for the differences.—*J. R. Hilgard* (Yale).

2001. **Lumley, F. E. The essential aspects of propaganda.** *Sociol. & Soc. Res.*, 1932, **16**, 517–526.—Various concepts of propaganda are discussed. The comparison of education and propaganda ;eveals that whereas education attempts to train men to weigh data so as to draw their own conclusions, propaganda presents conclusions for men to swallow.—*J. R. Hilgard* (Yale).

2002. **Maller, J. B., & Lundeen, G. E. Sources of superstitious beliefs.** *J. Educ. Res.*, 1933, **26**, 321–343.—A form of 50 items dealing with unfounded beliefs was prepared. These were to be marked by each observer, indicating whether or not he believed each item to be true and its source, e.g., from home, school, church, friends, newspapers, or personal observation. Results were obtained from 179 cases, of which 113 were pupils in a junior high school in East St. Louis and 66 pupils from a continuation school in New York City. The average age of the first group was 13 years and of the second group 16 years. The results indicate that the average pupil expressed a belief in 30% of the items, a disbelief in 55% and uncertainty in 15%. Younger children tend to believe more than older, the correlation being −.23 between belief and age. Girls expressed belief in a greater number of superstitions than boys. Friends ranked first as the source of superstitions, with home second, and educational sources and personal observation at the bottom of the rank order. The reverse order is the one found for the causes for correcting superstitions. The list of 50 unfounded beliefs is given.—*S. W. Fernberger* (Pennsylvania).

2003. **Mandowsky, A. Vergleichend psychologische Untersuchungen über die Handschrift.** (Comparative psychological studies on handwriting.) *Zentbl. f. Psychotherap.*, 1932, **5**, 715–733.—In order to discover whether the various psychoses give diagnostic signs in the handwriting, the scripts of a large number of schizophrenics and manic-depressives (the diagnoses being unknown beforehand to the author) were studied in regard to both graphological peculiarities and the emotional impression made on the reader. A series of normal persons, educated and uneducated, served as controls. The distribution frequency of various characteristics showed distinctive differences among the groups. A definite constellation of such differences has diagnostic meaning. The scripts of normal persons showed a smooth gradation in the frequency of various components, while those of the abnormals were unevenly distributed. The writing of schizophrenics and depressives showed analogies; that of the manics came nearer the normal. The author correlates graphological peculiarities with psychological traits. The handwriting of schizophrenics shows a genetic evolution, beginning with the early hypersensitive form, characterized by irregularity, angularity, and condensation. With increasing age and dementia, the script becomes more curved, regular, and stereotyped. The general conclusion is that, although one cannot say with certainty from the handwriting whether or not an individual has a mental disease, nevertheless one can deduce from it his most striking personality traits, and, knowing that he has a psychosis, one can tell the direction in which it is tending. Tables and specimens of script are given.—*M. E. Morse* (Hyattsville, Md.).

2004. **Mantegazza, P. Anthropological studies in the sexual relations of mankind.** New York: Falstaff Press, 1932. $6.00.—(Not seen).

2005. **Marcus, E. Das Rätsel der Sittlichkeit und seine Lösung.** (The riddle of morality and its solution.) München: Reinhardt, 1932. Pp. 237. M. 8.50.—(Not seen).

2006. **Moore, G., & Garrison, K. C. A comparative study of social and political attitudes of college students.** *J. Abn. & Soc. Psychol.*, 1932, **27**, 195–208.—The students at North Carolina State College (where the study was made) made a larger percentage of conservative and liberal choices than reactionary and radical ones—that is, they tend to avoid extremes of opinion. When compared with the attitudes of students in colleges of the north and extreme west, they appear to be slightly more extreme in their general political and social attitudes. The students were most reactionary and conservative on the following problems: race, sex and family, authority of religious and national tradition. Each succeeding college class made more liberal and radical and fewer reactionary and conservative choices. Although the numbers involved were rather small, results point consistently and rather conclusively to the fact that high scholarship and liberal-radical choices are positively correlated.—*C. H. Johnson* (Boston Psychopathic Hospital).

2007. **Muggia, A. Endocrinologia ed arte del canto.** (Endocrinology and the art of singing.) *Riv. di psicol.*, 1932, **28**, 194–202.—Among lyrical artists it is nearly always possible to find a special somatic constitution in which the endocrine element acts in an evident way in relation to and in comparison with either the morphological line of the body or the vocal manifestation.—*T. M. Abel* (Sarah Lawrence).

2008. **Mukerjee, R. The concepts of balance and organization in social ecology.** *Sociol. & Soc. Res.*, 1932, **16**, 503–516.—The conception of the natural area is applied to the classification of social and cultural types. Emphasis is placed on the fundamental social types and stages which are the outcome of the cumulative effects of environment and ecologic succession.—*J. R. Hilgard* (Yale).

2009. **Müller-Freienfels, R. Zur Soziologie der Wahrheit.** (The sociology of truth.) *Sociologus*, 1932, **8**, 310–323.—The author shows that there is no such thing as absolute truth, but that truth depends on the presence and conviction of an observer. Thus, as it is an individual matter, truth would have no general significance were it not for the fact that large social groups subscribe to common sets of ideas or truths, as for example religious beliefs. What a man believes depends on the group he belongs to. Thus truth is shown to have a sociological foundation.—*E. Fehrer* (Bryn Mawr).

2010. **Nathan, M. The attitude of the Jewish student in the colleges and universities towards his religion. A social study of religious changes.** New York: Bloch Pub. Co., 1932. Pp. 264. $2.50.—An analysis of the answers to a questionnaire on the Jewish student's point of view towards his religion. The answers were obtained from 1500 students in sixty universities over the United States. Some of the data were obtained from personal conferences and

student group discussions. The students' concepts of God, the nature and causes of change in their religious views and practices and the implications of the findings for educators are discussed. Bibliography.—*D. Shakow* (Worcester State Hospital).

2011. **Neurath, O. Sozialbehaviorismus.** (Social behaviorism.) *Sociologus*, 1932, **8**, 281–288.—The author presents the contention of the Viennese circle of sociologists, that empiricism should play the same part in the science of sociology that it does in the physical sciences, so that, on the basis of the general laws thus established, human behavior may be predicted in the same way that, for example, chemical behavior can be.—*E. Fehrer* (Bryn Mawr).

2012. **Oliver, R. A. C. The comparison of abilities of races: with special reference to East Africa.** *East African Med. J.*, 1932 (Sept.), 160–204.—Comparison of the abilities of English and French and the native Africans of their respective colonies. Comparisons of cultural achievements without reference to other abilities are questioned; on the basis of mental tests and cranial measurements "a certain percentage" of natives excel the average European.—*M. N. Hulin* (Princeton, N. J.).

2013. **Oseretsky, N. T. [Property transgressions of children and youth.]** Moscow: Yehpedgis, 1932. Pp. 224.—Delinquency is viewed as both socially and biologically conditioned. The negative traits of character of youthful delinquents are the consequences of their behavior traits and not of moral insanity. A long list of terms is given.—*A. Yarmolenko* (Leningrad).

2014. **Pear, T. H. Parallelen zwischen Sprache und Kleidung.** (Parallels between language and clothing.) *Indus. Psychotechn.*, 1932, **9**, 379–380.—The author shows that Flügel's three fundamental motives for dressing (the wish for ornament, the need for shelter or protection, and bashfulness) can be applied also to explain the development of language. Further, he believes that the same factors which change and modify dress are also operative in language changes. Some of these factors are natural customs, social status, temporary fashions, etc. As with clothing, a person's language can become a distinct sign of his personality, and by means of language people can obtain extension of the self. Long-distance telephone conversation is an extreme case of the latter. How personal power may be obtained through literature and oration is easily seen. An example of change due to social and economic status is found in the common occurrence that habits of speech may suddenly be dropped in one circle of society because they have been taken up by some other, perhaps lower class.—*C. Burri* (Chicago).

2015. **Redfield, R. Maya archeology as the Mayas see it.** *Sociologus*, 1932, **8**, 299–309.—The author discusses the interpretation of the archeological remains of ancient Maya civilization by a Maya tribe of today. The present-day explanations are shown to be made up of the ancient religious beliefs, the Christian religion, and stories of the Spanish invaders. The course of change in the religious beliefs resembles that which took place in Europe, the original gods who inhabited the sacred buildings having now in the popular belief degenerated to the status of fairies and goblins.—*E. Fehrer* (Bryn Mawr).

2016. **Repond, A. Quelques expériences sur la prophylaxie et la thérapeutique de la délinquance dans l'enfance.** (Some experiments in the prophylaxis and therapy of delinquency in children.) *Hygiène ment.*, 1932, **27**, 29–34.—The author gives the results of experiments on the treatment of infantile predelinquency. These experiments indicate that it is possible to readapt a large number of these children to reality in cases where their anti-social or asocial tendencies would in all probability have led them to enter into serious conflict with the law.—*Math. H. Piéron* (Sorbonne).

2017. **Rickman, J. The psychology of crime. IV.** *Brit. J. Med. Psychol.*, 1932, **12**, 264–269.—Criminals experience difficulty in applying themselves to everyday work. The criminal lacks normal pliancy between the rôles of male activity and female passivity. The central feature of the criminal's mind is a split in his mental life: infantile repression has seriously miscarried.—*E. R. Hilgard* (Yale).

2018. **Rodriguez Cabo, M. L'esame biologico medico dei delinquenti secondo il Codice Penale Messicano del 1929.** (The biological-medical examination of delinquents according to the Mexican penal code of 1929.) *Arch. di anthrop.*, 1931, **51**, 591–603.—The new code, based on the principles of the positive school, i.e., on the principle of social responsibility, provides for the classification and separation of delinquents after a detailed integral examination, and for the differentiation of treatment according to type. Such an examination of 300 delinquents revealed the fact that in only 132 cases was there any relation between the crime and the delinquents' psychophysiological condition. Of these 132 psychopathic cases, 34 were mentally deficient and their crimes were mostly against property; the rest belonged to the irritable, impulsive, paranoid, hysteric and epileptic types, and their crimes were mostly against persons.—*R. E. Schwarz* (V. A. Hospital, Northport, L. I.).

2019. **Sabanèev, L. [The psychology of the musico-creative process.]** *Psikhol.*, 1928.—*W. S. Hunter* (Clark).

2020. **Salkind, A. B. [On sexual education.]** *Pedol.*, 1932, Nos. 1–2, 11–20.—The author criticizes articles on sex education which stress the reflexological aspects of sex and lead to over-emphasis upon the biology of the function, ignoring social factors.—*A. Yarmolenko* (Leningrad).

2021. **Stanley, D., & Watkins, S. The science of voice.** New York: Carl Fischer, 1932. (2nd ed.) Pp. 300. $3.00.—*R. R. Willoughby* (Clark).

2022. **Steggerda, M. Results of psychological tests given to Maya Indians in Yucatan.** *Eug. News*, 1931, **16**, No. 8.—*W. S. Hunter* (Clark).

2023. **Stern, B. J. The letters of Ludwig Gumplowicz to Lester F. Ward.** *Sociologus*, 1933, Beiheft 1, Pp. 32.—*R. R. Willoughby* (Clark).

2024. **Taylor, W. S. A critique of sublimation in males: a study of forty superior single men.** *Genet. Psychol. Monog.*, 1933, **13**, 1–115.—The author brings into question the psychoanalytic theory of sublimation, and presents data collected by an interview and follow-up method from 40 men, principally of the graduate-student type, concerning (1) their sexual practices, (2) the adequacy of these to afford relief sufficient for sustained work, and (3) their attitudes toward the problem. Nocturnal emissions and masturbation were the principal relief activity under the age of 25, with the former dropping out after that age. The author discusses the social significance of his results, favoring early, temporarily childless marriage for graduate students; he regards his results as unfavorable to the sublimation theory, and offers certain alternative hypotheses.—*R. R. Willoughby* (Clark).

2025. **Thomas, D. S. A symposium on the observability of social phenomena with respect to statistical analysis. I. An attempt to develop precise measurements in the social behavior field.** *Sociologus*, 1932, **8**, 436–456.—This paper is concerned with techniques which the author has evolved as instruments for obtaining objective and reliable data on social behavior, and the process of evolving these techniques. The data used consisted of the behavior of children as observed in a nursery school and in kindergarten, and of adults as observed in industrial situations and in moving pictures. A successful classification of the different measurable kinds of behavior in social situations is made, and the method of observing these items of behavior so that highly reliable results may be obtained is described.—*E. Fehrer* (Bryn Mawr).

2026. **Tramm, K. A. Sprechsaal. Wir Polizeiführer brauchen keine Psychologie.** (Discussion: We leaders of the police force need no psychology.) *Indus. Psychotechn.*, 1932, **9**, 377–379.—This report answers an attack upon psychology made by Langheim, major of police, who thinks that psychology and psychiatry are based on a series of old wives' tales and superstitions. Tramm suggests to the major that he find out how many police organizations make use of the findings of modern psychology.—*C. Burri* (Chicago).

2027. **Travis, L. E., & Buchanan, A. R. A contribution to vowel theory.** *Science*, 1933, **77**, 121–122.—The authors present an experiment bearing on theories of vowel production. The neck and head of a cadaver were used to furnish the resonating cavities and a pure sine wave to act on the cavities. The sine waves were generated by a low frequency oscillator activating a head phone and conveyed to the cadaver by means of a rubber tube. For studying and recording the waves a condenser microphone with amplification and an oscillograph were used. Holding the sound-bearing tube directly in front of the microphone gave records of pure sine waves. But when the nose and mouth of the cadaver were placed in front of the microphone, after the rubber tube had been inserted through the trachea into the ventricle of the larynx, just above the level of the vocal cords, it was found that with one specimen waves of 200 and 300 d.v./sec. were altered, while with another specimen waves of 200, 500, and 900 d.v./sec. were altered. Alterations in the original waves emerging from the inserted tube appeared to occur during passage of the waves through the cavities of the neck and head of the cadaver. The authors conclude that their results substantiate the inharmonic or cavity tone theory of vowel production rather than the harmonic or steady state theory.—*C. C. Neet* (Clark).

2028. **U. S. National Commission on Law Observance and Enforcement. Report on the child offender in the federal system of justice.** Washington: Gov't Printing Office, 1931. Pp. 178. $0.40.—(Not seen).

2029. **Vidor, M. Was ist Musikalität?** (What is musical ability?) *Arb. z. Entwickspsychol.*, 1931, No. 11.—*W. S. Hunter* (Clark).

2030. **Vincent, M. J. The influence of drama upon human attitudes.** *Sociol. & Soc. Res.*, 1932, **17**, 142–152.—This study, in which the attitudes of 200 non-selected play-going adults are reported, attempts to determine whether the modern drama has exerted any perceptible influence upon the formation of human attitudes. Questions deal with the model or pattern of conduct offered by a drama hero or heroine, the presentation of a social problem for the first time, the extension of interest to social conditions of the day, and the effect on moral character.—*J. R. Hilgard* (Yale).

2031. **Voss, T. Hemmungen des jungen Menschen im religiösen Eigenleben.** (Obstacles to personal religious life in young people.) *Zsch. f. Religionspsychol.*, 1932, **5**, 212–229.—The frequent absorption of young people in the technicalities of sport and politics is not actually an inhibition, but results from inner inhibitions; these activities are substitutions through which the actual spiritual objective is pushed aside. These very marked realms of activity are of a somewhat morbid character, just as are the frequent changes from one field of activity to another. The inhibitions most frequently observable are anti-religious activities at the place of work, but also the automatic forgetting of everything of a pedantic character as soon as school has been left. In the performance of religion itself one of the most dangerous limitations is that soft and perpetually contrite form of Christianity which can only appeal to young people who are already unhealthy. The gap between desire and fulfilment works as an inhibition as regards belief.—*A. Römer* (Gautzsch bei Leipzig).

2032. **Watson, G., & Green, G. Scientific studies and personal opinion on sex questions.** *J. Abn. & Soc. Psychol.*, 1932, **27**, 130–146.—The purpose of this paper was to discover the extent to which 40 students in a western city would anticipate some of the findings in the sex investigations *A Research in Marriage*, by G. V. Hamilton, and *The Sex Life of 2200 Women*, by K. B. Davis. There was no general agreement between the investigations and the students' opinions. There was an enormous variability among popular notions on some of the sex points. No one type of individual was outstandingly well informed.

Men were no more accurate than women, married persons had no larger proportion of correct estimates than single persons, and whatever advantages accrued to age on some points were balanced by equivalent advantages to youth at other points. Selection of a wise counselor on matters of sex will have to be a matter of personal qualifications, and may well be independent of age, sex, or marital status.—*C. H. Johnson* (Boston Psychopathic Hospital).

2033. **Weiss, A. P. Value as an objective problem for psychology.** *J. Abn. & Soc. Psychol.*, 1932, **27**, 111–129.—With the acceptance of the physical postulate that the universe can be reduced to relatively simple elements such as electrons and protons, the problem of value occurs first and in its simplest form when the electron-proton aggregates reach a degree of complexity which corresponds to biological organization. When the degree of complexity reaches that of the human being, the category of the surviving group itself and the conditions which led to the survival will be given the name of value. There is no such thing as an inherent value. All value is acquired as a series of habits and activities from the social organization in which the individual develops. The problem of "values" is introduced primarily by those individuals who assume responsibility for planning the behavior of others to conform with their own plan of life or some hypothetical plan which they believe has universal validity.—*C. H. Johnson* (Boston Psychopathic Hospital).

2034. **Wells, C. D. The motion picture versus the church.** *Sociol. & Soc. Res.*, 1932, **16**, 540–546.—The church and movies are contrasted with regard to their origin, kind of group organization, type of appeal, main goal, technique, mechanics, and strongest points.—*J. R. Hilgard* (Yale).

2035. **Winthuis, J. Einführung in die Vorstellungswelt primitiver Völker.** (Introduction to the ideational world of primitive peoples.) Leipzig: Hirschfeld, 1931. Pp. 364. M. 8.00.—(Not seen).

2036. **Young, D. R. [Ed.] The modern American family.** Philadelphia: Amer. Acad. Pol. & Soc. Sci., 1932. Pp. 259. $2.50.—(Not seen).

[See also abstracts 1721, 1765, 1775, 1796, 1817, 1851, 1861, 1899, 1905, 1956, 1960, 1963, 2045, 2069, 2071, 2082, 2083, 2084, 2085, 2086, 2099, 2103, 2130.]

INDUSTRIAL AND PERSONNEL PROBLEMS

2037. **Baisi, V. Primo saggio di biotipologia costituzionale professionale.** (A first attempt at a professional constitutional biotypology.) *Arch. di anthrop.*, 1930, **50**, Suppl. to Fasc. 6.—*W. S. Hunter* (Clark).

2038. **Baranovsky, F. [Psychological analysis of the elements of technical safety placards.]** *Psikhol.*, 1932, No. 1–2, 89–144.—In determining the influence of the sensory character of placards, the author emphasizes the necessity of preliminary investigations upon a group of workers in a given specialty.—*A. Yarmolenko* (Leningrad).

2039. **Bark, B. T. [Psycho-hygienic work in the sanitary station at the mill Sdravpunkt.]** *Sovietskaya nevropatol., psikhiat. i psikhohig.* (Moscow), 1932, **1**, 956–960.—An attempt at psycho-hygienic work in a mill. The first task was the increase in production through the rationalization of mill and home conditions and through psycho-hygienic group work. The results were a decrease in neuro-psychic diseases and an increase in work output.—*A. Yarmolenko* (Leningrad).

2040. **Binns, H., & Bradford, F. T. J. Eine psychotechnische Untersuchung von Kammgarnen aus kurzen Wollen, Kämmlingen und Abfall.** (A psychotechnical investigation of comb-wool, short-wool, and shoddy.) *Indus. Psychotechn.*, 1932, **9**, 353–357.—That wool which is best in terms of quality and durability is not always most desirable from a sales and fashion standpoint. Frequently second-quality materials are preferred by buyers because of some particular fashion trend. The choice of wool material thus becomes a psychological problem. In this study the author tried to find a method of choosing wool materials. Six kinds of wool goods and wool knitting yarns, either dyed or undyed, and of different quality and type of wool were presented for judgment to a group of 27 subjects, consisting of weavers, storekeepers, salespeople, boys and girls, and the authors. Each kind of material was judged both by manipulation with eyes closed and by looking at it. Every sample was to be rated from 1 to 6 in terms of quality as determined by the appearance and the softness of the material. It was found that the visual appearance was more effective in judging the quality of the material than was tactual manipulation. The different judges gave a high degree of agreement and consistency in ranking the wools according to the length of the fibers of which they were made, but the relationship between desirability of the cloth and the cost of its raw material was very low. In almost all cases the second lowest grade of the group of materials, (the 50' Montevideo lambs' wool) received first choice for desirability. The authors believe that this ranking method is sufficient to determine the sales price differences between different grades of material. Since the price of the raw material is no good indication of the price of the finished product, this price should be fixed partly in terms of its popularity.—*C. Burri* (Chicago).

2041. **Bronstein, A. T. [The influence of awaiting a gas attack and wearing a gas mask upon the productiveness of some forms of work.]** *Voenno Med. J.* (Leningrad), 1932, **1**, 37–42.—*A. Yarmolenko* (Leningrad).

2042. **Camilovitch, C., & Varé, P. Dix ans de travail de l'Institut Scientifique de l'Organisation du Travail de Kazan (U.R.S.S.).** (Ten years of work of the Scientific Institute for Industrial Organization of Kazan, U.S.S.R.) *Rev. de psychol. appl.*, 1932, **2**, 126–133.—A report of the work of the various departments of the Institute of Kazan since its establishment in 1921. The Institute comprises the following sections, each of which presents a separate report:

division of industrial economy, division of industrial physiology, psychotechnical division, division of hygiene and industrial insurance, and the bureau of organization and administration.—*E. H. Kemp* (Clark).

2043. **Currie, J. H. The Dinta system.** *Human Factor*, 1932, **6**, 122–126.—The *Deutsches Institut für technische Arbeitsschulung* was founded in 1926 at Gelsenkirchen. Training is provided for selected boys to become skilled craftsmen in the engineering, mining, building and textile industries. Psychological tests for mental ability, physical fitness and vocational aptitude have been devised by Poppelreuter of the Bonn Institute of Industrial Psychology. They include tests for memory, general intelligence, manual dexterity, color-blindness and the ability to "think in three dimensions." As a scheme for training workers it follows the lines, to some extent, of the English guilds.—*R. S. Uhrbrock* (Procter & Gamble Co., Ivorydale, Ohio).

2044. **Du Preez, N. Beiträge zur Eignungsprüfung für den Lenkerberuf.** (Contributions to aptitude testing for drivers.) *Neue Psychol. Stud.*, 1930, **5**.—*W. S. Hunter* (Clark).

2045. **Erschowitz, N. Die Propaganda für die Technik in der Soviet Union.** (Propaganda for technology in the Soviet Union.) *Indus. Psychotechn.*, 1932, **9**, 366–377.—The author describes and gives examples of the kinds of propaganda which are used in Russia to popularize technology. The general purpose of this widespread movement is manifold; it attempts to solve technical problems, to demonstrate new technical accomplishments, to increase the quality of production, to decrease the price of production, to train new workers, and to broaden the knowledge of trained workers. The content of the propaganda varies for different levels of society, depending on whether it is aimed at workers, foremen, technologists, leaders, or engineers. For the masses, the content deals with the present status of technology in and outside of Russia, the tasks of the worker in technology, the kinds of raw products, the acquisition of labor, methods of education, problems of economics, and organization. The means of the propaganda are: the newspapers, advertisements, lectures, discussions, group demonstrations, instruction by mail, advisory stations, the cinema, exhibitions, books, schools, etc., etc. Even food containers and cigarette and chocolate wrappers are used to announce the achievements of technology. Frequently motivating appeal is made by decorating table linens, dishes and material for workmen's clothes with designs of machines and tools and encouraging phrases, such as: "We must learn more and more."—*C. Burri* (Chicago).

2046. **Gasca, M. D. Contributo allo studio per la scelta razionale degli impiegati.** (Contribution to the study of the rational selection of employees.) *Riv. di psicol.*, 1932, **28**, 105–122.—*T. M. Abel* (Sarah Lawrence).

2047. **Gorovoi-Shaltan, W. A. [The fluctuations of work during the wearing of gas masks.]** *Voenno Med. J.* (Leningrad), 1932, **1**, 91–101.—*A. Yarmolenko* (Leningrad).

2048. **Gorovoi-Shaltan, W. A. [The psychophysiology of military work and the task of rational soldier preparation.]** *Voenno Med. J.* (Leningrad), 1932, **2**, 14–15.—*A. Yarmolenko* (Leningrad).

2049. **Hayes, M. H. S. The vocational service for juniors: annual report for 1931.** New York: 122 East 25th St., 1932. Pp. 16.—(Not seen).

2050. **Herzer, W., & Lenkner, H. Die psychologische Wirkung der Links- und Rechtslenkung beim Automobil.** (Psychological effects of left- and right-side automobile driving.) *Indus. Psychotechn.*, 1932, **9**, 349–353.—The authors made their investigations by means of projection films, some electric spark diagrams, and driving curves from an experimental car, which had been constructed for left- and right-side driving. Such driving curves were constructed for six experienced subjects, practiced in left- and in right-side driving. It was found that for every hundred yards the driver covers seven yards more territory in left-side than in right-side driving. In general, right-side driving calls for greater slowing down at curves and turns, and it requires more operating energy, but it assures greater safety because the driver stays to the right better and makes turns and curves at a lower speed. In left-side driving curves tend to be made carelessly, and thus dangerous situations are produced. However, by this latter method of driving a driver's movements and energy expenditure are reduced to a minimum.—*C. Burri* (Chicago).

2051. **Kravtchinsky, B. D., & Serebrennikov, P. T. (On the energetic value of military work, shooting, with Red Soldiers.)** *Voenno Med. J.* (Leningrad), 1932, **1**, 82–90.—*A. Yarmolenko* (Leningrad).

2052. **Kravtchinsky, B. D., & Serebrennikov, P. T. [The budget of time and the energy-estimation of the Red soldier's work-day.]** *Voenno Med. J.* (Leningrad), 1932, **2**, 337–341.—*A. Yarmolenko* (Leningrad).

2053. **Mehmke, R. L. Psychologie für Vorgesetzte.** (Psychology for superiors.) *Indus. Psychotechn.*, 1932, **9**, 359–366.—This article presents a few rules of behavior which should help supervisors, leaders, and foremen in their relationships with their workmen: never be snobbish; do not talk unnecessarily or in an aggressive manner; give orders in an understandable, direct and friendly way; do not show favors; do not preach; be sympathetic with the wishes and problems of those you guide; show confidence; and by all means be a good example in all things you demand from others.—*C. Burri* (Chicago).

2054. **Meignant, P. L'orientation et la sélection professionelle.** (Vocational guidance and selection.) *Hygiène ment.*, 1932, **27**, 121–140.—A résumé of the theories presented to the Comité National d'Etudes Sociales et Politiques at a meeting devoted to this question, by MM. Sollier, Lahy, Piéron, Lacoin, Laugier, Perret and Chauffard.—*Math. H. Piéron* (Sorbonne).

2055. **Miles, G. H. Effectiveness of labour incentives.** *Human Factor*, 1932, **6**, 53–58.—The "anti-social tendencies of incentives of the fear and gain type" need to be counterbalanced by those "which will tend to promote the efficiency of the firm as a whole and at the same time arouse a genuine spirit of cooperation in its members." Situations which will develop pride in work are well worth fostering. "For some workers the knowledge that they have done good work has in itself a definite incentive value. Others need in addition some outside recognition and appreciation, and all welcome these when generously given." "The hope of promotion is in itself a stimulus, and on promotion there is increased self-esteem and a sense of responsibility—both important incentives to work." Systematic instruction, which makes good work and promotion possible, also acts as an incentive. If a worker is deceived by unfair bonus methods he will detect the deception and react against the management. "When, however, he is treated as a fellow human being and as a partner in the enterprise, the effectiveness of the available incentives will be in proportion to their breadth of appeal and to the accuracy with which they utilize and balance the conflicting aspects of human nature."—*R. S. Uhrbrock* (Procter & Gamble Co., Ivorydale, Ohio).

2056. **Plöttner, O. Einfluss der Instruktion auf Arbeitsgüte und -geschwindigkeit.** (Influence of instruction on the quality and speed of work.) Dresden: Akad. Buchhandlung Foken und Oltmanns, 1932. Pp. 70. RM. 6.—The author examines the influence of instruction on the quality and speed of various samples of work (attention, intelligence, manual work) in that he has every task done under three instructions: good, normal, quick. In a preliminary examination the influence of practice is observed and various methods are given for its diminution or consideration. All experiments are group experiments. Further, we get the relationship between the quality of work and the speed at quality work, normal work, and speed work. The evaluation of the results is given graphically and arithmetically and is presented and discussed in curves and tables. In the text appears a chronological description of the manner in which the experiments were carried through and their evaluation. The entire literature which has appeared on the subject in Germany is indicated and discussed on a comparative basis. The author verifies the conception that through emphasis on the quality of work, or through stress on the working speed, we achieve an increase of the desired effects, whereas the increase of some components causes the decrease of others. The degree of the attainable change depends upon willingness to work, individual influences, type of work, and working conditions. The tendency of these relationships prevails in skilled as well as unskilled work. The existing scattering (difference) of the quality of work and the speed in one working group becomes greater with a one-sided emphasis on one of these components than with equal observation of both. On the strength of results of our examinations we define the working speed of an individual as resulting from his personal tempo and from the individual difficulties of the work to be performed.—*O. Plöttner.*

2057. **Prikladovitsky, S. T. [Data characteristic of the work day and peculiarities of the tank-mechanic's work.]** *Voenno Med. J.* (Leningrad), 1932, **2**, 18–27.—*A. Yarmolenko* (Leningrad).

2058. **Rabofsky, A. Zur Psychotechnik der Kartei.** (Psychotechnics of card indexing.) *Indus. Psychotechn.*, 1932, **9**, 322–342.—Rabofsky describes three systems of card indexing, the Hinz visible, the Kardex flat visible, and the Ekaha index systems, and tests them experimentally as to the ease and speed with which they can be operated. Fourteen subjects were required to work on the indexes for familiarization. Then they had to find five cards with errors and to fill out twenty cards for each system. The time and errors for finding the wrong cards and for indexing were taken and the different systems compared. For finding a card none of the systems can be considered exclusively best or worst. As determined from the actual experimental results, the three systems can be operated with the same ease and speed. But, according to the subjects' reports, the Ekaha system appears to be the most desirable. For the process of indexing, three methods were tested, two involving the Ekaha system. In one situation all the required cards were taken out of the file and then filled out together. In another test each card was filled out at the time when found, and then immediately replaced in the file. The third method of indexing was done with the Kardex system, in which the cards need not be removed from the file. Consequently, this method of indexing proved to be the fastest. Of the first two methods, that in which every card is finished and replaced in the file before another one is started is more efficient than that in which many cards are taken out of the file, indexed and than replaced. In a second part of the study the author discusses the suitability of the different systems for certain specific purposes, such as banking, industrial work, library work, etc. In regard to fire dangers, the Ekaha system seems to be the least suitable, because the cards are very loosely arranged in the file, thus permitting many air spaces, and air-filled cards burn easily. A comprehensive bibliography follows the report.—*C. Burri* (Chicago).

2059. **Rochlin, S. [The problems of intellectual work in the period of reconstruction in the U. S. S. R.]** *Sovietskaya nevropatol., psikhiat. i psikhonevrol.*, 1932, **1**, 239–244.—The organization and rationalization of intellectual work in the U. S. S. R. aims at increasing tempo and productiveness. A central scientific institution is to be organized, which will organize all scientific research into separate fields (psychology, pedagogy, physiology, psychotechnics, and mental hygiene.)—*A. Yarmolenko* (Leningrad).

2060. **Rogers, H. S., & Holcomb, G. W. Inventory of engineering motives.** *J. Engin. Educ.*, 1932, **22**, 851–860.—The following "major interests and instincts" appear to be characteristic of engineering students and practitioners: (1) constructive instinct, (2) scientific curiosity in mechanisms, (3) abstract ideas of a quantitative nature, (4) precise observation

and description of physical things, (5) practical application, (6) planning and organization, (7) manual activity and craftsmanship. Five statements, designed to indicate degree of interest or motive, were grouped under each main heading. The thirty-five statements were checked by 204 engineers, 88 commerce students, 25 students of vocational education, and 19 commerce women. It was concluded "that the inventory blank provides the vocational counselor or personnel officer with a valid instrument by which he can quickly picture a student's engineering motives. When an interview is given, the profile instantly describes the motivating tendencies and saves considerable time for the counselor."—*R. S. Uhrbrock* (Proctor & Gamble Co., Ivorydale, Ohio).

2061. **Rupp, H. Über Arbeitsschnelligkeit und Arbeitsgüte.** (Concerning speed and excellence of work.) *Psychotechn. Zsch.*, 1931, **6**, Nos. 4 and 6.—*W. S. Hunter* (Clark).

2062. **Simkin, N. V. [Deviations in the work of sorting materials while wearing a gas mask.]** *Voenno Med. J.* (Leningrad), 1932, **2**, 180–185.—*A. Yarmolenko* (Leningrad).

2063. **Tead, O. Trends in industrial psychology.** *Ann. Amer. Acad. Pol. & Soc. Sci.*, 1930, No. 2391–2392.—*W. S. Hunter* (Clark).

2064. **Trabue, M. R. Occupational ability patterns.** *Person. J.*, 1933, **11**, 344–351.—Work of the Committee on Individual Diagnosis and Training in the Minnesota Employment Stabilization Research Institute indicates that people who are successful in a given occupation tend to have definite patterns of ability, distinct from those in most other occupations. Figures demonstrate the patterns found in several occupations.—(Courtesy *Person. J.*).

[See also abstracts 1691, 1696, 1698, 1931, 1964, 1984, 2154.]

CHILDHOOD AND ADOLESCENCE

2065. **Bender, L. Gestalt principles in the sidewalk drawings and games of children.** *J. Genet. Psychol.*, 1932, **41**, 192–210.—The classical statement that "the child draws what he knows, not what he sees" needs to be modified; for study of many sidewalk sketches reveals elements that are rather expressions of different pattern-tendencies appearing as phenomena of maturation, and seeming to represent an equilibrium between the child's visuo-motor tendencies and the realities of the world as he perceives it. Illustrative of the former is the early preponderance of vortical or whirling details and later of angular details, while the latter is shown by the child's omission of hair and other details with which in the objects represented he has no personal concern.—*J. F. Dashiell* (North Carolina).

2066. **Bernfeld, S. Trieb und Tradition im Jugendalter. Kulturpsychologischen Studien an Tagebüchern.** (Impulse and tradition in adolescence. Psycho-cultural studies of diaries.) *Beih. z. Zsch. f. angew. Psychol.*, 1930, No. 54.—*W. S. Hunter* (Clark).

2067. **Davenport, C. B. Relation between physical and mental development.** *Eug. News*, 1930, **15**, No. 6.—*W. S. Hunter* (Clark).

2068. **David-Schwarz, H. Zum "Falle Bringolf."** (Concerning *The Case of Bringolf.*) *Psychol. Rundschau*, 1933, **4**, 206–210.—The article is a résumé of the book with comments on the experiences of childhood that resulted in the building of the personality as revealed in the narrative.—*A. B. Herrig* (Michigan Central State Teachers College).

2069. **Ferreri, G. Il primo linguaggio infantile.** (The first infantile speech.) *Riv. ped.*, 1931; *Ann. d. instruz. elem.*, 1931, **6**, No. 4.—*W. S. Hunter* (Clark).

2070. **Foster, J., & Anderson, J. Das junge Kind und seine Eltern.** (The young child and his parents.) *Vjsch. f. Jugendk.*, 1932, **2**, 241–243.—Case 86, of a 6-year-old girl, expelled from school for temper tantrums, stealing and threatening teacher, is described.—*M. Lee* (Chicago).

2071. **Fuchs-Kamp, A. Lebensschicksal und Persönlichkeit ehemaliger Fürsorgezöglinge.** (Fate and personality of foster children.) *Abh. a. d. Gesamtgeb. d. Krimpsychol.*, 1929, Heft 6. Pp. 171.—*R. R. Willoughby* (Clark).

2072. **Gantschewa, S. Kinderplastik.** (Children's modeling.) *Arb. z. Entwickspsychol.*, 1930, No. 8.—*W. S. Hunter* (Clark).

2073. **Gilbert-Robin, —. La paresse est-elle un défaut ou une maladie?** (Is laziness a fault or an illness?) Paris: Flammarion, 1932. Pp. 280. Fr. 12.00.—The child is never lazy; he is ill or badly brought up, and the physician must often collaborate with the teacher in attempting to make the child normally educable. It appears from the observation of the author that individuals without mental deficiency or perversions of character may, however, be inactive, struck by a sort of organo-affective indifference. This leads to the admission that there is, in the normal child, a displacement of energy related to the capacity for attention of all orders (affective and intellectual) and that the physician must be able fairly often, by his medical care, to cause the disappearance of the deficiencies of those who are wrongly believed to be purely lazy children. In the first part of the book, which the author calls *The Last Ones in the Class*, he reviews the various forms of inattention and distraction in children, and the physiological causes of these morbid distractions: the unstable, the quickly tired, the slow, and the inert. The second part discusses mental retardation.—*Math. H. Piéron* (Sorbonne).

2074. **Hilgard, J. R. Learning and maturation in preschool children.** *J. Genet. Psychol.*, 1932, **41**, 36–56.—Two groups of ten children each, aged 24 to 36 months, were equated for chronological age, mental age, sex, and initial abilities in three skills: buttoning, cutting with scissors, and step climbing. The practice group was given 12 weeks' practice, the unpracticed control group being given none; and both were then tested after the 12 weeks period. The former group was superior to the latter on all tests, but the differ-

ences were only fairly reliable. The unpracticed group was then allowed 4 days of intensive practice, in which very rapid improvement was shown; and comparison of the two groups showed differences that were unreliable. Thus, one week of practice by the control group sufficed to bring it almost to the level reached by the practice group after 12 weeks. The results are interpreted to mean that other factors than specific training were involved, both that of maturation and that of general practice in related activities.—*J. F. Dashiell* (North Carolina).

2075. **Irwin, O. C. The amount of motility of seventy-three newborn infants.** *J. Comp. Psychol.*, 1932, **14**, 415–428.—There were marked individual differences in the motility of these children soon after birth. It was found, furthermore, that daily samplings of a large group give approximately the same results as continuous samplings of a small group, that no infant shows zero activity, that the distribution for motility is skewed positively, that daily fluctuations are not usually significant, that a significant difference in the amount of activity appears about the fourth or fifth day, and that motility is about six times greater during waking.—*N. L. Munn* (Pittsburgh).

2076. **Irwin, O. C. The distribution of the amount of motility in young infants between two nursing periods.** *J. Comp. Psychol.*, 1932, **14**, 429–445.—Using the stabilimeter-polygraph technique, the author investigated the motility of 73 infants ranging in age from less than 1 day to 16 days. Waking and motility are not correlated. The author believes that both are related to hunger contractions. Details concerning the periods of greatest motility are reported and statistically analyzed.—*N. L. Munn* (Pittsburgh).

2077. **Jenkins, L. M. A comparative study of motor achievements of children of 5, 6, and 7 years of age.** *Teach. Coll. Contrib. Educ.*, 1930, No. 414. Pp. xi + 54.—300 children of the ages indicated were tested on a series of simple physical tests, such as the 35-yard dash and the accuracy test in throwing a baseball. Comparisons of the sexes and of the age groups are made; their preferences for the different events are noted; and the frequency of right-handedness and -footedness is observed. Bibliography of 17 titles.—*J. M. Stalnaker* (Chicago).

2078. **Jersild, A. T. Training and growth in the development of children: a study of the relative influence of learning and maturation.** *Child Development Monog.*, 1932, No. 10. Pp. 73.—Following a review of the literature which includes a tabular presentation of investigator, subjects, items studied, and findings, the author presents a group of experiments devised to study the effect of special training and to throw light on the general problem of the relative influences of growth and experience, including training. The performances chosen for investigation were speed of color naming, strength of grip, speed of free association, vital capacity, strength of back, speed of tapping, and vocal ability, the last consisting of the ability to reproduce tones and intervals. The equivalent group method was used, the procedure following the test-retest plan, with a second retest several months after training had come to an end. Results show that in tapping, vital capacity, strength of back, and free association, the practiced children showed only a small advantage over the controls at the end of training, and no significant difference remained after a three months period of no practice. Practice in color naming gave the experimental group a substantial gain over the controls, but this also disappeared after a three months period of no training. For strength of grip, the practiced group maintained a lead after three months of no training, but had lost it after seven and one half months. Practice in singing tones and intervals gave the only relatively permanent results, the practiced group gaining a decided margin over the controls and a reliable difference still remaining after four months. In general, it is concluded that training in a performance in which the child can improve by adding new items to his performance, e.g. singing, may produce results which he would not normally acquire until a later time, while training in a performance which permits permanent improvement only through an increase in capacity, e.g. speed and strength, cannot accomplish the increase which normally comes as a result of growth. Additional calculations indicate that individual differences are not substantially altered by training. A positive but inconclusive correlation was found between intelligence and improvement in the mental performances.—*P. Seckler* (Clark).

2079. **Jones, H. E., & Dunn, D. The configural factor in children's learning.** *J. Genet. Psychol.*, 1932, **41**, 3–15.—Kindergarten children were trained and tested on four sets of variables (areas, forms, brightnesses, colors) each furnished on cards in four degrees designated 1, 2, 3, and 4. Training consisted of their learning to choose correctly between cards 2 and 3 of each set, groups A and B to choose 3, groups C and D 2; and testing then consisted of presentations of 3 with 4 (to group A and D) or of 2 with 1 (to groups B and C), thus affording opportunities for relative and for absolute choices. Great individual differences appeared in the tendency to make relative choices, and no relation between this and mental or chronological age, although the tendency when present persisted with differing series-content. The frequency of relative choice was related positively to rapidity of learning or else to overlearning.—*J. F. Dashiell* (North Carolina).

2080. **Krivý, M. Das Gefühl der Minderwertigkeit im Kindesalter.** (The feeling of inferiority in childhood.) *4. Vers. f. Kinderforsch*, Bratislava, 1932, 117–123.—The feeling of inferiority, which consciously or unconsciously relates itself to real or supposed qualities, arouses in normal persons the striving to overcome the situation, a psychic compensation. In neurotics, however, this feeling may have either a stimulating or an inhibiting effect. It may lead to egotism and cruelty, or in more sensitive personalities to sympathy and joy in sacrifice. The feeling of inferiority should not be strengthened in any way by the educator. Krivý disagrees with the explanation of inferiority feelings in girls on the theory either of

castration or the masculine protest.—*M. E. Morse* (Hyattsville, Md.).

2081. **Krout, M. H. The psychology of children's lies; with a selected bibliography on general child psychology and the treatment of children's difficulties.** Boston: Badger, 1932. Pp. 113. $2.00.—(Not seen).

2082. **Krupka, E. Die Verwahrlosung der Jugend.** (The neglect of youth.) (2nd ed.) Bad Blankenburg: "Harfe," 1931. Pp. 47.—(Not seen).

2083. **Leitner, H. Psychologie jugendlicher Religiosität.** (Psychology of adolescent religiosity.) *Arb. z. Entwickspsychol.*, 1930, No. 9.—*W. S. Hunter* (Clark).

2084. **Liese, E. Das Freihandzeichnen bei kindlicher Selbständigkeit und unter Berücksichtigung des kindlichen Vermögens.** (Free-hand drawing and self-reliance in children, with especial reference to natural ability.) Langensalza: Beltz, 1932. Pp. 96. RM. 3.50.—The book begins with an historical summary of modern instruction in drawing and sets forth the requirements necessary for success in such instruction. The problems of handicraft and technique are briefly discussed. Two modes of instruction are distinguished. The recognition of beauty is discussed and its relation to the arts emphasized. References to the literature are also given at this point. The inadequacies of instruction in drawing and grounds for the same are reviewed. The book affirms a strong belief in the factors of natural aptitude and ability on the part of both the children and their teacher. Numerous practical suggestions for teachers are given. The methods of "presentation" and of "creative form" in drawing are also discussed. Bibliography.—*E. Liese* (Wiesbaden).

2085. **Lovejoy, O. R. The negro children of New York.** New York: Children's Aid Society, 1932. Pp. 49.—(Not seen).

2086. **Martin, H. Stile und Stilwandlungsgesetze der Kinderzeichnung, nachgewiesen an den Menschenzeichnungen der Volksschulkinder.** (Styles and laws of change in style in children's drawing as shown in drawings of a man by folkschool children.) *Vjsch. f. Jugendk.*, 1932, **2**, 211–226.—About 1000 drawings were made under observation by girls aged 6–14. Typical changes, both psychological and technological, were found to be associated with development. The author describes these in detail in regard to the head, arms, and other parts drawn. Changes in size of the whole drawing and of the parts, changes in the direction in which certain lines are drawn and in the type of line used, as well as in the general physical adjustment to the task, were also observed. Finally, four levels of performance were differentiated: (1) a direct attempt at the form, restricted to the simplest arm-hand movements; (2) a more controlled and planned attempt, with a true guidance of the hand; (3) a careful two-part attack (a rough blocking in and a detailed completion in which the parts become relatively important) associated with control over a wider range of hand movements; (4) unity of the parts and the whole, interest in dynamic features, and fine-line differentiation and elaboration.—*M. Lee* (Chicago).

2087. **McClure, W. E., & Goldberg, B. A clinical study of "Toledo's strong boy."** *J. Abn. & Soc. Psychol.*, 1932, **27**, 159–167.—Clarence Kehr is a rare anomaly with respect to his physiological and anatomical growth. Since the age of four he has attracted nation-wide attention because of his unusual strength. When first observed at the Juvenile Adjustment Agency at the age of five years and five months, his general bodily structure was exceptionally large, weighing 28 pounds more than the average boy of corresponding age and height. His sexual development at the age of four was reported as being equal to that of a boy of fourteen. At the age of five years and seven months radiographs of his wrists and hands showed an anatomical growth equivalent to sixteen or eighteen years, but with dental development paralleling his chronological age. His IQ was 92 on the Stanford-Binet test. His present condition is thought to be caused by a tumor of the pineal gland. An investigation of his hereditary background failed to throw any light on the causative factors.—*C. H. Johnson* (Boston Psychopathic Hospital).

2088. **Mitchell, H. H. A study of factors associated with the growth and nutrition of Porto Rican children.** *Human Biol.*, 1932, **4**, 468–508.—*O. W. Richards* (Yale).

2089. **O'Shea, H. E. "Habits" of three successive nursery-school groups and some relations between traits.** *J. Genet. Psychol.*, 1932, **41**, 167–191.—The emotional, mental, motor, and social-moral habits on the Andrus Inventory, and the IQ on the Kuhlmann scale, were recorded for three successive year groups. The groups differed on all five sets of traits. The emotional scores were the only ones that showed no progression with age. Many correlations are worked out between the various kinds of traits, the highest being that between the motor score and the M.A. and that between the motor and mental habit score, the lowest being that between chronological age and motor score and that between emotional and motor, while a negative correlation appeared between mental habit and emotional scores.—*J. F. Dashiell* (North Carolina).

2090. **Peters, W. Die Aufmerksamkeitskonzentration der Undeterminierten.** (The concentration of attention of indeterminates.) *Zsch. f. Psychol.*, 1932, **127**, 161–180.—The "indeterminate" child represents one of three main types of abnormal children recognized by the author. This type is characterized by an exaggerated but poorly directed urge to activity, plus a lack of capacity for sustained attention. The application of the Bourdon test of concentration to 129 retarded children, whose intelligence was known, resulted in a bi-modal distribution, which when analyzed leads to the assumption of two fundamentally distinct concentration types, independent of age, intelligence and speed of work. This is regarded by the author as support for his hypothesis of an indeterminate type.—*R. B. MacLeod* (Cornell).

2091. **Ruppert, H. Aufbau der Welt des Jugendlichen.** (Structure of the world of the adolescent.) *Zsch. f. Psychol.*, 1931, Ergsbd. 19.—*W. S. Hunter* (Clark).

2092. **Skorepa, M. Die Schwierigkeiten bei der characterologischen Erforschung des Pubertätsalters.** (Difficulties in the characterological study of puberty.) *4. Vers. f. Kinderforsch.*, Bratislava, 1932, 360–366.—Attempts to differentiate various characterological types at puberty encounter difficulties due to the instability of mental phenomena at this period. Furthermore, the hindrance of an incorrect typology may even compromise the child's development by creating a false predestination. Only a partial typology of single abilities is possible at this age; but here again we encounter the fact that the child is an integral whole, which must be grasped synthetically and individually.—*M. E. Morse* (Hyattsville, Md.).

2093. **Spranger, E. Psychologie des Jugendalters.** (Psychology of adolescence.) (16th ed.) Leipzig: Quelle & Meyer, 1932. Pp. 364. M. 9.00.—*R. R. Willoughby* (Clark).

2094. **Staples, R. Some factors influencing the afternoon sleep of young children.** *J. Genet. Psychol.*, 1932, **41**, 222–228.—At a nursery school where careful time records were taken, (1) the length of the afternoon nap, and (2) the time taken to fall asleep, were not found significantly related to amount of morning out-of-door play or to omission or inclusion of a nap before lunch, but were influenced by the particular person in charge.—*J. F. Dashiell* (North Carolina).

2095. **Stejskal, C. Angewandte Pädologie.** (Applied child science.) *4. Vers. f. Kinderforsch.*, Bratislava, 1932, 62–79.—Psychology in general and child psychology in particular first became fruitful in practice when it turned from the general to the differential. Child science has four organically interrelated parts: the biology, psychology, sociology, and neuropsychopathology of the child. The child is the center of the modern school, where directed activity has taken the place of the passivity of the former school régime. In order to do justice to individual differences among pupils, and to avoid rigid conformity, the author recommends an elastic differentiation of the program; i.e., each elementary grade should have a section for normal children, for those retarded by external circumstances, and for the defective. Other fields of applied child science are the medical and social care of adolescents and vocational guidance.—*M. E. Morse* (Hyattsville, Md.).

2096. **Ulin, C. Emotionella reaktioner hos spädbarn vid beröring.** (Emotional reactions of sensitive children to stimulation.) *Tidskr. f. psykol. o. ped. forsk.*, 1931, **3**.—*W. S. Hunter* (Clark).

2097. **Wallon, H. La conscience de soi, ses degrés et ses mécanismes, de trois mois à trois ans.** (The degrees and mechanisms of self-consciousness from three months to three years.) *J. de psychol.* 1932, **29**, 744–783.—This essay brings together and systematizes the literature on the infant's self-consciousness. The author thinks of the growth of self-consciousness as a steady process, the earlier activities being rendered subliminal, but not eliminated. The activities of earlier life which are outgrown in the course of development remain as the bases of intuitional and affective life.—*N. L. Munn* (Pittsburgh).

2098. **Wehnert, W. Pubertätserscheinungen im Volksschulalter.** (Phenomena of puberty during the *Volksschule* years.) Bostrop: Postberg, 1931. Pp. 93.—(Not seen).

[See also abstracts 1653, 1701, 1880, 1916, 1917, 1939, 1965, 1974, 1986, 2016, 2028, 2031, 2065, 2104, 2123, 2164.]

EDUCATIONAL PSYCHOLOGY

2099. **Biddle, W. W. Propaganda and education.** *Teach. Coll. Contrib. Educ.*, 1932, No. 531. Pp. vii + 84.—An analysis of the methods in current use in propaganda and a research into the methods of increasing critical thinking. Nine lessons on manipulating the public were given in 6 schools by the regular teachers (11th or 12th grade or college freshmen) to approximately 200 pupils. Tests on gullibility were given before and after. A control group from each school took the tests only (145 students). A false test was introduced at the end of the teaching to mask the purpose of the later test of gullibility. The test material, validated by 24 judges, is not given. The initial and final scores of the control group correlate .59 and .40 for two scorings. The split-half reliability was .77. A significant difference was found between the two groups. About one-quarter of the experimental group did not profit, while one-half showed definite improvement. The bibliography has 22 titles.—*J. M. Stalnaker* (Chicago).

2100. **Bradford, E. J. G. The measurement of perspective in the geographical outlook of secondary pupils.** *Brit. J. Educ. Psychol.*, 1932, **2**, 332–352.—Presents tests for measuring perception of relationship of geographical locations to fundamental characteristics on given scales. Scores indicate that grasp of perspective varies directly with general scholastic ability, with sex (boys superior), and with methods of teaching. Errors in perspective common to the pupils of the first year are found to persist in spite of the teaching in later classes, but knowledge of geographical terms increases from year to year. Two appendices elaborate the statistical treatment of scores.—*K. M. Cowdery* (Stanford).

2101. **Brandt, A. K. L'éducation doit-elle supprimer l'initiative?** (Should education suppress initiative?) *Psychol. et vie*, 1932, **6**, 274.—*Math. H. Piéron* (Sorbonne).

2102. **Buros, O. K. A simple technique for the calculation of chronological ages.** *J. Educ. Res.*, 1933, **26**, 360–363.—The calculation is made from prepared tables.—*S. W. Fernberger* (Pennsylvania).

2103. **Caliver, A. A personnel study of negro college students.** *Teach. Coll. Contrib. Educ.*, 1931, No. 484. Pp. viii + 146.—This study "has considered the interrelations of various factors in the family, community, school and personal life of nearly 450

college students and the relation of these factors to their achievement, interests in college, and probable outcome of their educational endeavors." Bibliography of 107 titles.—*J. M. Stalnaker* (Chicago).

2104. **Chauncey, M. R. The educational and occupational preferences of college seniors.** *Teach. Coll. Contrib. Educ.*, 1932, No. 533. Pp. 72.—A detailed study of the responses of 764 University of Pennsylvania seniors on 11 questions of the *Report of the Student* obtained in the Carnegie Study in Pennsylvania, and of their relationship to the achievement test scores, and to the student's high school and college record. Seniors prefer not to study again or to have reduced or omitted languages and Latin. "There is a significant tendency for science, psychology, economics, English and liberal arts courses to be mentioned for addition or extension." Preference is found to be significantly related to achievement and to amount of study. "This study has found sufficient validity . . . to justify the use of the questionnaire method in the investigation of certain educational problems on the higher undergraduate levels." Bibliography of 34 titles.—*J. M. Stalnaker* (Chicago).

2105. **Chen, H. S. [A comparison of the old-type and new-type examinations.]** *J. Measurement* (*Chinese*), 1932, No. 2, pp. 6.—The author first points out the four major functions of examination in the school, as follows: (1) encouraging the student to work, (2) maintaining the standard of the school, (3) measuring the student's accomplishment, and (4) discovering the weaknesses of the student in order to improve the teaching method. Then a comparison of the old-type and new-type examinations is made. According to the author, the chief advantages of the old-type examination are (1) giving the students an opportunity for freely expressing their ideas, and (2) training their ability to express thoughts in words; but it has two serious disadvantages, viz., (1) subjectivity in scoring, and (2) inappropriateness of sampling. The new-type examination has six advantages, viz., (1) scoring is more objective, (2) sampling is more comprehensive, (3) results are more reliable, (4) scoring is more easy and efficient, (5) the answers of the students are more easily controlled, and (6) there is a good chance for effective instruction when the students are scoring their own test papers. However, it also has three following defects, namely, (1) the students have no opportunity for adequately expressing their thoughts and viewpoints, (2) it does not train their ability to express thoughts in words, and (3) if improperly used, it is more liable to become mechanical, thereby making the students pay attention only to rote memory rather than thorough understanding.—*C.-F. Wu* (Nat. Res. Instit. Psychol., Peiping, China).

2106. **Chou, H. W. [Aim and policies of education in Japan.]** *Chung Hwa Educ. Rev.* (*Chinese*), 1932, **20**, No. 1, 1–14.—The author points out that the ideal of the governing class in Japan is to maintain their emperor-centered state. The aim of Japanese education is to train people (1) to obey laws and promote the public welfare, and (2) to defend the nation and support the imperial family. The educational policies of Japan are (1) intelligent re-direction of young men's thought, (2) encouragement of physical education, (3) reconstruction of political education, and (4) promotion of the "enlightenment movement." The author then enumerates the main objectives and methods of each of these four policies. Finally, the educational policies held by the different political parties in Japan are also briefly reviewed.—*C.-F. Wu* (Nat. Res. Instit. Psychol., Peiping, China).

2107. **Coleman, J. H. Written composition interests of junior and senior high school pupils.** *Teach. Coll. Contrib. Educ.*, 1931, No. 494. Pp. viii + 117.—An analysis of the topics chosen by 4019 eighth to twelfth grade pupils when they wrote a composition on a title of their own choice reveals little difference in the sexes, both preferring adventure, sports, and travel. Younger pupils include animals and vacation; older ones write about school. There is a great variety of topics chosen. 4,835 pupils gave a reason for the selection, and wrote on one topic from a list of 12. They also checked the next best topic and two topics they disliked most. This process was repeated three times, one week apart, with different but comparable title lists. Travel, adventure, and outdoor activity were liked, while sentimental topics, children, and health were disliked by both sexes. Boys disliked religion. The chief reasons for selection of a topic were that they liked the topic or had special knowledge about it. 4,660 pupils indicated their first two and last two preferences for a certain type of discourse by checking such preferences on a list of 10 types of discourse. Friendly letter, argument, description, and narration are liked, while poetry, business letter, editorial essay and exposition are disliked. 46 numbered tables and much unnumbered tabular material give the results in detail. Recommendations are given.—*J. M. Stalnaker* (Chicago).

2108. **Connor, R. The scholastic behavior of a selected group of undergraduate home economics students.** *Teach. Coll. Contrib. Educ.*, 1931, No. 497. Pp. ix + 71.—182 students from two universities (76 of whom graduated four years after entrance) were studied "to discover . . . differences between attainment in home economics subjects and attainment in background subjects." The intelligence of the home economics group was significantly below that of the total group of women students of the universities. Elementary chemistry and economics were the subjects in which the home economics students secured the most low grades, while general education and home economics education were the subjects in which these students received the most high grades. "It is hoped that those who have the problem of selecting students who should prepare to teach home economics may find helpful material in the results of this study." A bibliography of 27 titles is given.—*J. M. Stalnaker* (Chicago).

2109. **Conrad, E. Unsichtbare Klippen.** (Invisible rocks.) *Vjsch. f. Jugendk.*, 1932, **2**, 237–241.—The case of a boy who developed increasing anxiety states in class is analyzed. The two unseen rocks on which good adjustment in the school situation may be

wrecked are derived from a teacher's preconceived opinions and impatience, and from a student's opposition to rules.—*M. Lee* (Chicago).

2110. **Coxe, W. W. Levels and ranges of ability in New York state high schools.** *Univ. State of New York Bull.*, 1932, No. 1001. Pp. 44.—Tabulated results of tests given in the high schools during the preceding school year. It is observed that the total range in chronological age in any one grade for the seventh year through the twelfth for the state as a whole is approximately nine years. The range of the middle 50%, however, is approximately two years. Similarly, it is found that there is a range of approximately ten years in mental maturity that must be cared for in a single grade, though the middle 50% gives a range of about two years. Progress in school is found to follow a compromise between two procedures: in the first, progress from grade to grade is determined by achievement, and adaptations to meet individual needs are provided for by varying the rate of progress over an established body of subject matter; in the second, progress takes place yearly with no achievement qualifications to be met, and adaptations to individual needs are provided for by varying the subject matter offered to groups in the grade. It is recommended that differentiated work in each grade be introduced as rapidly as possible.—*E. H. Kemp* (Clark).

2111. **Cunningham, B. V., & Connor, R. Suggested experiments in the field of pre-parental education.** *Teach. Coll. Rec.*, 1933, **34**, 285–301.—In response to a request sent to 5000 junior and senior high school students, 2,337 topics of general interest which need to be discussed by high school pupils were collected and classified. Results: vocation, 27%; education, 33%; personal-social, 14%; home-family, 5%. A second group of 5,000 pupils were sent a check list of 94 representative topics. The topics of interest for discussion were checked. An analysis of the results is given.—*J. M. Stalnaker* (Chicago).

2112. **Danzinger, L. Bildermaterial zum Schulreifetest.** (Materials for a test of readiness for school.) Leipzig: Deutscher Verl. f. Jugend u. Volk, 1932. M. 3.00.—*R. R. Willoughby* (Clark).

2113. **De Oliveira Firmo, A. B. O exame alpha nos universitarios de Pernambuco.** (The Alpha examination in the universities of Pernambuco.) Pernambuco: Diario da Manha, 1930. Pp. 65.—(Not seen).

2114. **Deputy, E. C. Predicting first-grade reading achievement.** *Teach. Coll. Contrib. Educ.*, 1930, No. 426. Pp. 61.—Five measures of reading readiness—Pintner-Cunningham Primary Mental Test, visual-visual association, word selection, visual-auditory association, and content comprehension and recall—were made on 103 children entering the first grade. They were sectioned on the basis of the mental test. Reading achievement was measured by two specially devised reading tests (given in the appendix), by the Detroit Word Recognition test, and by teachers' estimates. The combination of the three reading measures, called reading achievement, gives a correlation with intelligence of .70. The multiple correlation between reading achievement and the five measures of reading readiness is given as ".747663." The bibliography of 10 titles does not include most of the footnote references. "This investigation has shown the possibility of predicting first-grade reading achievement to an extent which justifies its use in beginning reading."—*J. M. Stalnaker* (Chicago).

2115. **Douglass, H. R. Certain aspects of the problem of where we stand with reference to the practicability of grouping.** *J. Educ. Res.*, 1933, **26**, 344–353.—Discussion of the experimental findings with regard to homogeneous grouping of pupils indicates that such grouping is impossible if it is to mean the construction of sections of pupils entirely homogeneous in any one school subject. The author believes that such grouping is merely a plan of organization which facilitates the better adaptation of educational materials and methods to the needs of the pupil, but does not in itself insure better instruction.—*S. W. Fernberger* (Pennsylvania).

2116. **Feng, T. Y. [How to improve rural elementary-school teachers in China.]** *Chung Hwa Educ. Rev.* (*Chinese*), 1932, **20**, No. 3, 29–39.—The author first points out that a rural elementary-school teacher has two-fold responsibilities, viz., (1) the mission of being an educator, and (2) the mission of being a social reformer. The rural elementary-school teachers in China are blamed for (1) poor physique, (2) lack of good moral qualities, (3) lack of academic preparation, (4) lack of spirit as educators, (5) lack of ability as social leaders, (6) lack of cultivation in spiritual life, (7) being unaccustomed to the rural life, and (8) inadequacy of teaching method. According to the author, the rural elementary-school teachers may be improved in two ways; one is temporary, i.e., concerning the improvement of those teachers now in service, and the other is fundamental, i.e., concerning the training of prospective teachers. For improving the teachers now in service, the following remedial measures are to be taken: (1) betterment of the teacher's treatment, including increase of salary, monetary reward for special merits, provision of pensions, and, in case of death, subsidy for the family, etc.; (2) making up deficiencies in academic training, including enforcement of scholastic guidance, provision of summer schools, extension of rural reading-clubs, and organization of societies for the study of rural education, etc.; (3) security for a fixed term of tenure, with one or two years of approbation. For training the prospective rural elementary-school teachers, the following important measures are suggested by the author: (1) reconstruction of curricula in the normal schools and other teacher-training institutions, with emphasis on such selective courses as practice of rural education, husbandry and horticulture, etc., and improvement of practice-teaching; (2) establishment of more rural normal schools, aiming at the training of farmer-like teachers, scientific-minded teachers, teachers with artistic interests, and teachers with a zeal for social reform; (3) strict enforcement of entrance examination, consisting of physical examination, interest test, and

academic examination; the latter should include one day of farm work, an essay, a common-sense test, and 5 minutes' oration; (4) adequate supply of school equipment, including buildings, teaching material and books, laboratory apparatus, workshops, and school gardens; (5) re-making of the normal school curriculum on a three-year plan, with the first three semesters emphasizing the basic subjects and the later three semesters devoted to a professional training in the principles of education, teaching material and method, and rural life; last, (6) extension work to be carried out by the prospective rural elementary-school teachers, in order to promote mass education and improve the rural life on the one hand and to develop their own interests and abilities for social reform on the other.—*C.-F. Wu* (Nat. Res. Instit. Psychol., Peiping, China).

2117. **Findlay, J. J. The psychology of modern language learning.** *Brit. J. Educ. Psychol.*, 1932, **2**, 319–331.—Advocates approaching the learning of a foreign language through the experiences of hearing, repeating and memorizing excerpts before attempting translations and analysis, in order to avoid the confusions and resistance of the learner's habits as established in his own vernacular. Habits independent of the mother tongue can thus be set up more rapidly and will produce a facility which will permit later translation, criticism and grammatical analysis.—*K. M. Cowdery* (Stanford).

2118. **Flerov, O. [The pedological-pedagogical peculiarities of children in preparatory classes.]** *Pedol.*, 1932, **2**, 74–80.—The lowering of the school age in the U. S. S. R. from eight years to seven years has made it necessary for the schools to organize special classes for seven-year-olds. A thorough knowledge of children of this age is necessary in this work, in order to educate the children in school work and group work, and to organize the incomplete experience of the pupils.—*A. Yarmolenko* (Leningrad).

2119. **Good, C. V. Doctors' theses under way in education, 1932–1933.** *J. Educ. Res.*, 1933, **26**, 381–400.—A list of 404 doctorate theses in education under way, in which are given the name of the candidate, the title of the study, the institution at which the work is being done, and the name of the major advisor.—*S. W. Fernberger* (Pennsylvania).

2120. **Hartman, G., & Shumaker, A. [Eds.] Creative expression; the development of children in art, music, literature and dramatics.** New York: John Day, 1932. Pp. 350. $5.00.—(Not seen).

2121. **Heilman, J. D. Sex differences in intellectual abilities.** *J. Educ. Psychol.*, 1933, **24**, 47–62.—In terms of averages, it is "practically certain that the true sex difference in spelling lies above zero and that it is in favor of the girls." For language usage, reasoning in arithmetic, nature study and science, "the chances that the true differences are above zero are high but not sufficiently so to guarantee practical certainty. For variability it is probably safest to say that no true difference has been established." Except for spelling, no true sex difference has been found between the tenth and ninetieth percentile points. These conclusions apply only to ten-year-olds.—*J. A. McGeoch* (Missouri).

2122. **Hille, J. W. L. Allgemeine pädagogische Psychologie oder die Hauptsachen der empirischen Psychologie in genetischem Aufbau auf Grund der Benekeschen Lehren neu dargestellt und erklärt.** (General educational psychology, or the fundamental data of empirical genetic psychology upon the basis of Beneke's theories, newly presented and explained.) Hamburg: Stefanski, 1930. Pp. 135. M. 2.50.—(Not seen).

2123. **Hilleboe, G. L. Finding and teaching atypical children.** *Teach. Coll. Contrib. Educ.*, 1930, No. 423. Pp. 177.—A classified bibliography lists 321 titles.—*J. M. Stalnaker* (Chicago).

2124. **Howe, M. E., & Kyte, G. C. Diagnostic record of teaching.** Boston: Houghton Mifflin, 1932.—(Not seen).

2125. **Kiely, M. Comparisons of students of teachers' colleges and students of liberal-arts colleges.** *Teach. Coll. Contrib. Educ.*, 1931, No. 440. Pp. 147.—*J. M. Stalnaker* (Chicago).

2126. **Krieger, L. B. M. Prediction of success in professional courses for teachers.** *Teach. Coll. Contrib. Educ.*, 1930, No. 420. Pp. 77.—*J. M. Stalnaker* (Chicago).

2127. **Kurani, H. A. Selecting the college student in America.** *Teach. Coll. Contrib. Educ.*, 1931, No. 503. Pp. x + 124.—An analysis of admission procedures of 287 colleges, and of the factors affecting trend of enrolment as reported by 249 colleges. The concept of selection is discussed. A proposal for an institute for guidance is described. Bibliography of 63 titles.—*J. M. Stalnaker* (Chicago).

2128. **Lübbert, F. Der Einfluss der Schullandheimerziehung auf die verschiedene Altersstufen.** (The effect of country [boarding] school education upon different age levels.) *Vjsch. f. Jugendk.*, 1932, **2**, 208–211.—The author observed the five upper classes at the Nieblum school for three weeks each in the summer of 1931. He finds the fifth class most interested in individual imaginative play, e.g. sailing boats and playing Indian. The fourth class is less interested in this activity and forms small informal groups, but is not ready for organized games. In contrast to these, the three upper classes are alike in their predominating interest in organized activity, e.g. military games and contests with other schools. For all classes the environment is optimum for development; for the younger boys it offers plenty of opportunity for physical activity and freedom from urban amusements such as movies; for the older ones it furnishes a small society in which they may early form concepts of social adjustment and service.—*M. Lee* (Chicago).

2129. **Madden, R. The school status of the hard of hearing child.** *Teach. Coll. Contrib. Educ.*, 1931, No. 499. Pp. v + 64.—The 46 children in the hard of hearing group selected from a school population of 892 showed impaired hearing on 3 different tests, by 3 types of audiometers, at testing intervals of at least

one week. They were paired with children normal in hearing who were of the same age, race, sex, and parental occupational status. The correlation between auditory acuity and intelligence was .124. The difference between the means of the IQ's of the two matched groups is significant (6.42). No indication was found that the hard of hearing group had a language handicap. When the groups were equated on the Stanford-Binet, no differences in achievement were found. The teachers rate the hard of hearing children less often as leaders and more often as shy and solitary. Bibliography.—*J. M. Stalnaker* (Chicago).

2130. **Maller, J. B. Testing the knowledge of Jewish history.** Cincinnati: Department of Synagogue and School Extension of the Union of American Hebrew Congregations, 1932. Pp. xv + 252.—The results of the application of objective tests covering virtually the complete range of Jewish history to 7,000 pupils in some thirty Sunday schools.—*D. Shakow* (Worcester State Hospital).

2131. **Meister, O. Psychologisch-Pädagogisches aus den Schulungskursen für Arbeitslose.** (Psychological-pedagogical observations from the courses of instruction for the unemployed.) *Vjsch. f. Jugendk.*, 1932, 2, 227–231.—The author finds the antagonistic attitude of students in classes for the unemployed to be the inevitable result of their situation. Because of it, however, discipline is hard to maintain, and its success depends largely upon the personality of the teacher.—*M. Lee* (Chicago).

2132. **Moede, W. Eignungsuntersuchungen an technischen Hochschulen.** (Aptitude testing in higher schools of technology.) *Indus. Psychotechn.*, 1932, 9, 357–358.—Since of those students who had successfully passed their entrance examination for the higher schools of technology, a high percentage failed in their finals, Moede suggests that a finer selection should be made. With this purpose in mind, he introduced into some schools a system of aptitude analysis which was used to supplement the entrance examination. This procedure proved very helpful in selecting competent students, and since by means of an aptitude analysis a student's special abilities can be determined it is possible to give him proper guidance as to the particular line of studies he ought to take; thus fewer failures occurred.—*C. Burri* (Chicago).

2133. **Moss, F. A. Scholastic aptitude tests for medical students.** *J. Asso. Amer. Med. Coll.* (January). Pp. 27.—This report, presented at the forty-third annual meeting of the Association, held in Philadelphia November 14–16, 1932, discusses the predictive value of the tests for medical students. A comparison has been made between the scores obtained in the aptitude test administered to different groups of freshman students during their pre-medical work and the performances of these students throughout the years of medical school work. A first group of 1,000 students has been followed through four years, a second group of 5,000 students through three years of medical work. From the results of this comparison it is concluded that "the aptitude test scores give a somewhat better prediction of what the student can do in medical school than any other single one."—*G. de Montpellier* (Clark).

2134. **Mursell, J. L. The psychology of secondary school teaching.** New York: Norton, 1932. Pp. x + 468. $2.50.—This book is "functional" in conception and organization, subdividing teaching into the process of instruction, the process of guidance, the setting of standards, and the control of behavior. Under the first heading, the author deals with the learning process; the laws and conditions of learning; transfer; how to teach reading, English usage, problematic thinking, attitudes, and memory processes. Under the second he deals with measurement of mental abilities, prediction of academic success, and guidance. The third part deals with the construction, use, and technique of examinations; and the fourth part with motivation and the problem of discipline. Each chapter is followed by a list of suggested additional readings, a short list of problems for discussion, and a bibliography applicable to the chapter. Illustrative of the author's treatment of his subject, the sub-headings in Chapter III, dealing with the laws and conditions of learning and their application to instruction, are reproduced as follows: The laws of learning: (1) the law of frequency; (2) the law of effect; (3) the law of primacy; (4) the law of recency. General conditions of learning: (1) trial and error; (2) the will to learn; (3) the distribution of practice; (4) the problem of sense modalities. General phenomena of learning: (1) the learning curve; (2) the cycle of learning capacity. Learning and original nature.—*O. L. Harvey* (Boston).

2135. **Park, M. G. Training in objective educational measurements for elementary school teachers.** *Teach. Coll. Contrib. Educ.*, 1932, No. 520. Pp. vi + 100.—This is an analysis of existing courses and textbooks on educational measurements which appear in state normal schools as part of the training of intermediate grade teachers. The results of an examination of representative textbooks in educational measurements in respect to their topical contents serve as a check list against which the contents of individual courses are reported and ranked in importance by the respective teachers of the courses. 73 (55% of those requested) normal schools located in 33 different states reported. There are portrayed conditions which are pertinent to the following problems of the measurement course: administration, chief functions, and materials used. The questionnaire method was also used in an effort to determine to what extent the subject-matter-methods teacher affects the professional training in objective educational measurements and to what extent measurements are featured in the practice teacher's training. To this, 118 teachers (30% of those requested) in 78 normal schools responded. The entire study is summarized.—*J. M. Stalnaker* (Chicago).

2136. **Phillips, M. Some problems of adjustment in the early years of a teacher's life.** *Brit. J. Educ. Psychol.*, 1932, 2, 237–256.—From correspondence

with young teachers from four training schools conclusions are drawn that the cause of prevalent breakdowns is not single but manifold, and of nine kinds: (1) personal difficulties intensified rather than relieved by professional life, (2) unsuitable placing of teachers, (3) inadequate conditions for work, (4) class management and difficult individual pupils, (5) relations with older members of the staff, (6) conflict in educational outlooks, (7) school conditions surrounding the school, (8) insufficient leisure for the growing personality, and (9) financial problems. Reports of one or more cases of each type of difficulty are quoted.—*K. M. Cowdery* (Stanford).

2137. **Schneider, M. [Grade-age of school children.]** *Pedol.*, 1932, No. 1–2, 50–61.—The method of applying grade-age used so widely in America is not applicable to conditions in the U. S. S. R.—*A. Yarmolenko* (Leningrad).

2138. **Searl, M. N. Some contrasted aspects of psychoanalysis and education.** *Brit. J. Educ. Psychol.*, 1932, **2**, 276–296.—The author contrasts the techniques of psychoanalysis with the aims and methods of education. She concludes that the educator must always remain distinct from the analyst, but that their functions can be complementary. An educational environment is not suitable to the exploration of the unconscious psyche, which, due to emotional difficulties in childhood, has been separated from the conscious.—*K. M. Cowdery* (Stanford).

2139. **Segel, D. A note on an error made in investigations of homogeneous grouping.** *J. Educ. Psychol.*, 1933, **24**, 63–65.—The error in question is "that the correlation coefficient found between the predicted criterion and the criterion is not the correct one because it has not been corrected for attenuation in the criterion." Its correction is discussed.—*J. A. McGeoch* (Missouri).

2140. **Seidlin, J. A critical study of the teaching of elementary college mathematics.** *Teach. Coll. Contrib. Educ.*, 1931, No. 482. Pp. viii + 107.—An attempt is made to summarize, criticize, and evaluate present-day methods of college teaching by a study of the records of the actual observation of 150 recitations in college mathematics conducted by 66 teachers in 20 institutions. Classroom procedures may easily be classed in one of 7 types. Illustrations of most frequent violations of principles of learning are given. Teaching is subordinated in larger institutions to productive research.—*J. M. Stalnaker* (Chicago).

2141. **Shih, M. H. [Characteristics of a good test.]** *J. Measurement* (*Chinese*), 1932, No. 2. Pp. 6.—The author enumerates the chief characteristics of a good test as follows: (1) validity, (2) reliability, (3) objectivity, (4) comprehensiveness, (5) facility, (6) utility, and (7) rapport. The value of a test is to be determined by the presence or absence of these seven qualities. The author also discusses the ways of acquiring or improving each of these characteristics of a good test.—*C.-F. Wu* (Nat. Res. Instit. Psychol., Peiping, China).

2142. **Spence, R. B. A comprehensive testing program for elementary schools.** *Teach. Coll. Rec.*, 1933, **34**, 279–284.—A discussion concerning the use of standardized tests, presenting a plan for a testing program for the elementary school.—*J. M. Stalnaker* (Chicago).

2143. **Stoddard, G. D. A survey of nursery school costs.** *J. Educ. Res.*, 1933, **26**, 354–359.—Results of a questionnaire from 60 nursery schools show a high cost, the major contributing factor of which is a median pupil-teacher ratio of only 7.—*S. W. Fernberger* (Pennsylvania).

2144. **Sze, J. F. [The practice of elementary-school teaching in Japan.]** *Chung Hwa Educ. Rev.* (*Chinese*), 1932, **20**, No. 2, 23–33.—The statistics of the year 1931 showed that there were 25,606 elementary schools with an enrollment of 9,680,732 pupils in Japan, of which 4 were government schools with 2,377 pupils, 25,479 were public schools with 9,648,791 pupils, and 105 were private schools with 29,564 pupils. The public elementary schools play the most important rôle in Japanese compulsory education. They are more subject to strict administration than the private schools; their activities are prescribed by school laws and regulations, and their teaching method is also more conservative. According to the author, the teaching of the public elementary schools has the following characteristics: (1) uniformity of method; (2) adequate equipment; (3) utilization of motion pictures; (4) emphasis on labor training, including gardening, rearing of domestic animals, construction of toys and other things, management of household affairs, and social service; (5) encouragement of physical education; and (6) cultivation of good manners. These are general features. As regards special school subjects, each has its own merits: (1) Moral instruction, with emphasis on actual behavior, is given in the form of lectures, reading, discussion, or performances. (2) Japanese-language teaching stresses reading. (3) Arithmetic teaching consists of mental calculation, calculation with pen, and work with the abacus. (4) Teaching of history and geography, especially the former, is primarily limited to the Japanese empire, emphasizing military affairs and narrow nationalism. The recent tendency is, however, to pay more attention to local material and learning by doing than to factual information and memory. (5) Science teaching emphasizes demonstration, experimentation, and adequate classroom equipment. (6) Teaching of physical education includes drill, games and sports. (7) Art teaching includes drawing, hand work and music. Finally, the author also points out that the new teaching method which is now under experimentation differs from the old method in shifting emphasis (1) from teacher-centered to child-centered, (2) from instruction to learning, (3) from discipline to self-government, (4) from restraint to freedom, (5) from uniformity to individualization, (6) from superhuman to human, (7) from knowledge assimilation to all-round personality, (8) from accumulation to growth, (9) from deductive to inductive, and (10) from classroom to laboratory.—*C.-F. Wu* (Nat. Res. Instit. Psychol., Peiping, China).

2145. **Thomson, E. I. M. A study of the efficiency of "individual work." Part II.** *Brit. J. Educ. Psychol.*, 1932, **2**, 257–275.—Pupils in classes taught on the individual plan received higher scores in successive Stanford Achievement Tests than pupils in a control class taught conventionally; they also were found to have higher intelligence quotients. Achievement ratios showed progress to have reached expectations for both groups. It is concluded that teaching by individual methods does not jeopardize the standing of pupils on standard tests in tool subjects.—*K. M. Cowdery* (Stanford).

2146. **Townsend, M. E. The administration of student personnel services in teacher-training institutions of the United States.** *Teach. Coll. Contrib., Educ.*, 1932, No. 536. Pp. 115.—"This study has as its chief purpose that of calling attention to the present status of student personnel services in teacher-training institutions, and of indicating what the present best judgment of experts would recommend for their development. Much is still in the realm of opinion." Bibliography of 174 titles.—*J. M. Stalnaker* (Chicago).

2147. **Ullrich-Hof, J. Schulleistungen von Knaben und Mädchen im Alter von 16 bis 20 Jahren.** (School performance by boys and girls from 16 to 20 years of age.) München: Oldenbourg, 1930. Pp. 28. M. 0.60.—(Not seen).

2148. **Ver Steeg, K. Is geology easier for boys than for girls?** *Science*, 1933, **77**, 169.—An examination of the grades of 647 students in a course in physical geology shows that the women are slightly better than the men, although the difference is so slight that the author concludes that they may be considered equal in ability. This conclusion is opposed to that of Gragg Richards, who presented evidence to prove that geology was easier for men.—*P. Seckler* (Clark).

2149. **Wallenrod, R. John Dewey éducateur.** (John Dewey as educator.) Paris: Jouve, 1932. Pp. 227.—The author, intentionally neglecting dialectic discussions implied in the theory of Dewey, limits himself to discussing the ideas of Dewey in the special pedagogic sense, i.e., his ideas on the school which is based on life, and which tends to ameliorate and enrich it. In the first part he discusses theories of education, the ends of education of the individual, the formation of the socialized individual, education as reconstruction of experience and reconstruction of society. He then reviews the processes of education (faculties, action and thought, activity, etc.). In the second part he brings out applications, discusses programs of study and methods, and emphasizes the necessity for the development of tests and statistics in education. The third part is historical, dealing with the precursors of Dewey (Rousseau, Pestalozzi, Herbart, Froebel, Tolstoy), and shows the points in common possessed by these educators and Dewey. In conclusion, he discusses the psychological basis of and indicates objections to Dewey's theories. Bibliography.—*Math. H. Piéron* (Sorbonne).

2150. **Webb, L. W., & Shotwell, A. M. Standard tests in the elementary school, nursery school to sixth grade.** New York: Long & Smith, 1932. Pp. 438. $2.75.—(Not seen).

2151. **Whitelaw, H., & Laslett, H. R. A further study of acceptance of popular misbeliefs among college students.** *Kadelpian Rev.*, 1932, 11, 297–300.—The Nixon questionnaire of popular misbeliefs was given to 238 women and 193 men students of general psychology in Oregon State College. The average number of acceptances of these statements as true was 9.3 for women, with a range of from 0 to 201, and 9.0 for men, with a range of 1 to 131. A comparison of the ranks of acceptance of the items of the test as true as found by these authors and those found by Garrett and Fisher working with a different group gave a rank order correlation of .80. The authors conclude that the results of these studies indicate that education does not remove the acceptance of certain misbeliefs, or superstitions, as true. In the author's opinion three main causes of the retention of superstitions are: removal of vague fears, increase of advantage over others, and self-justification for relative failures.—*P. Seckler* (Clark).

2152. **Zubin, J. Some effects of incentives.** *Teach. Coll. Contrib. Educ.*, 1932, No. 532. Pp. viii + 60.—217 pupils from two classes each of grades 6, 7, and 8 were given addition and number comparison tests. In one class of each grade certain of the exercises were trial ones—no names were put on the sheets—and certain exercises were announced as contest exercises to determine the best, next best, etc. In the other classes, the control group, an equal number of work periods was used but no incentives were given. All papers were unsigned. The incentive produced measurable changes. Only 6% suffered a loss when the incentive was used. The changes produced by the incentive were fairly reliable. The variation in incentive speed was consistently smaller than the variation in non-incentive speed. The self-correlation of incentive speeds was higher than the self-correlation of non-incentive speeds. 36 titles are given in the bibliography.—*J. M. Stalnaker* (Chicago).

2153. **Zyve, D. L. Manual of directions and scoring key for the Stanford Scientific Aptitude test.** Stanford University: Stanford Univ. Press, 1931.—*W. S. Hunter* (Clark).

[See also abstracts 1669, 1776, 1850, 1936, 1979, 1990, 2006, 2020, 2163.]

BIOMETRY AND STATISTICS

2154. **Bingham, W. V. Reliability, validity and dependability.** *Repr. & Cir. Ser. Person. Res. Fed.*, 1932, No. 24, *J. Appl. Psychol.*, 1932, 16, 116–122; *7me Conf. Int. de Psychotechn.*, Moscow, 1931.—Industrial psychology aims to increase the output and satisfactions of individual workers; hence, when estimating a man's probable success in an occupation, all available relevant data, as well as test scores, should be given their proper weights. To this end the method of critical scores and of weighting items

in proportion to the statistical significance of group differences is widely applicable. The industrial psychologist should bear in mind not only the reliability and validity of his measures, but also their dependability ($1-\sqrt{1-r^2}$) in forecasting the criterion.—*W. V. Bingham* (Personnel Research Federation).

2155. **Lindquist, E. F. A further note on the significance of a difference between the means of matched groups.** *J. Educ. Psychol.*, 1933, **24**, 66–69.—A reply to the paper by Ezekiel (*J. Educ. Psychol.*, 1932, **23**, 446–450).—*J. A. McGeoch* (Missouri).

[See also abstract 1887.]

MENTAL TESTS

2156. **Argelander, A. Eine Intelligenzprüfung an Studierenden nach dem Testheftverfahren von Bobertag.** (An intelligence examination of students with the test method of Bobertag.) *Zsch. f. Psychol.*, 1931, **123**, Nos. 1–3.—*W. S. Hunter* (Clark).

2157. **Brown, W. Mathematical and experimental evidence for the existence of a central intellective factor.** *Nature*, 1932, **130**, 588–589.—A research carried on during the preceding year with the help of C. Spearman and W. Stephenson is reported. Twenty tests of apparently non-overlapping intellective ability, selected by Stephenson after much preliminary trial and approved by Spearman, have been applied to 300 boys, aged 10½–11 years, drawn from twelve elementary schools of the L.C.C. After rejection of one of the tests and one of the correlation coefficients there remained 11,356 positive tetrads (and an equal number of negative ones) which form a smooth frequency curve. The best-fitting probability curve to the distribution gives a much poorer fit than the Type IIa Pearson curve (which gives a good fit).—*E. H. Kemp* (Clark).

2158. **Conrad, H. S. The personal equation in ratings: II. A systematic evaluation.** *J. Educ. Psychol.*, 1933, **24**, 39–46.—The personal equation "is defined as referring to spurious differences between the means of the standard deviations of two judges' ratings; the personal-equation effect is defined as the influence of spurious differences in means and standard deviations, upon the correlation of ratings with an adequate criterion." It is concluded that the latter has been greatly over-estimated and that improvements in technique can keep personal-equation effects at a very low figure.—*J. A. McGeoch* (Missouri).

2159. **Conrad, H. S. The bogey of the "personal equation" in ratings: a rejoinder.** *J. Educ. Psychol.*, 1933, **24**, 70.—A reply to Rosenow's note (*J. Educ. Psychol.*, 1932, **23**, 465–466).—*J. A. McGeoch* (Missouri).

2160. **Cox, J. W. A critical note on some recent research on mechanical ability.** *J. Genet. Psychol.*, 1932, **41**, 228–234.—The Minnesota research and tests are criticized, so far as concerns their central theoretical finding, on several grounds: the nature of mechanical ability is preconceived; the statistical criterion of "uniqueness" is not rigidly defined, or consistently employed; the Spearman two-factor theory is misunderstood; the formula used is obsolete. An examination of the data in relation to the reviewer's own work is promised in a later paper.—*J. F. Dashiell* (North Carolina).

2161. **Lee, J. M., & Symonds, P. M. New-type or objective tests: a summary of recent investigations.** *J. Educ. Psychol.*, 1933, **24**, 21–38.—Papers on the following topics are reviewed and brief summaries of conclusions reached are given: teaching values of new-type tests, comparative validities, comparative reliabilities, scoring methods, special problems peculiar to the true-false test, students' attitudes toward testing, new types of tests, miscellaneous problems, and important discussional references. Bibliography of 73 titles.—*J. A. McGeoch* (Missouri).

2162. **Maller, J. B., & Zubin, J. The effect of motivation upon intelligence test scores.** *J. Genet. Psychol.*, **41**, 136–151.—Form 1, scale B, National Intelligence Test, was administered to 42 children, who were then divided into two equivalent groups. Thirteen days later the same test was again given them, one of the groups now working under the rivalry motive. Comparison showed that this motive (1) led to no relative increase in score, but (2) did produce a relative increase in items attempted, though (3) offset by an increase in errors, and (4) did produce slightly greater variability of scores. There was a marked difference in the subtests in these respects. The motivational effect appeared greater in the older children.—*J. F. Dashiell* (North Carolina).

2163. **Nihard, R. La méthode des tests.** (The method of tests.) Juvisy, Seine & Oise: Editions du Cerf, 1932. Pp. 240.—The author intends to initiate the teachers into the use of tests for mental and educational measurements, still insufficiently known in France and Belgium. He gives a brief history and description of these tests and has tried to state, briefly but exactly, some questions about the principles and the use of the method, particularly the need for more objective measurement of intelligence, aptitudes and educational achievement; the meaning of intelligence tests and of IQ; the conditions of standardization, reliability, validity of tests; the use of these tests in the classification of school children, the selection of gifted children, and vocational guidance.—*R. Nihard* (Liége).

2164. **Updegraff, R. The determination of a reliable intelligence quotient for the young child.** *J. Genet. Psychol.*, 1932, **41**, 152–166.—To learn whether initial Binet tests for the young child are equally reliable if given under new and under strange conditions, children, ranging in age from 19 to 66 months, were divided into (1) those given initial test just before entering the preschool laboratories, and (2) those given it after having attended the laboratories for at least two weeks. A second test was given each child six months later. The correlation between results on first and second tests was clearly lower for the (1) children than for the (2) children. A third test, given within a year, produced results correlating with those of the second (with both groups) as highly

as had those of the second with the first in case of the (2) group. There were more gains than losses in IQ, the two groups making similar gains and showing similar variations. In general, it is demonstrated that a determination of a child's IQ is more reliable if taken after some school experience; and this is interpreted as due to the factors of strangeness, emotional state, etc., rather than to a change in the child's actual intelligence.—*J. F. Dashiell* (North Carolina).

2165. **Wellman, B. L. Some new bases for interpretation of the I. Q.** *J. Genet. Psychol.*, 1932, **41**, 116–126.—A large number of children have been retested with Stanford and Kuhlmann Binets for many years. Striking improvements in the IQ scores have been consistently shown, especially by those originally below average. The explanation advanced is that preschool attendance causes a rise in IQ scores which is sustained for many years, and which is not attributable to test experience, since it is not shown when the children are at home over comparable intervals.—*J. F. Dashiell* (North Carolina).

[See also abstracts 1724, 1754, 1892, 1936, 1981, 2113.]

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